DECEMBER 16, 1944 Founded in 1856

Serial Record

DEC 27 1944

U. P. Diesel Goes 1,049,000 Miles Without Major Overhaul

Diesel-electric locomotive No. 9-M-1A of Diesel-electric locomotive No. 9-NI-IA of the Union Pacific, one City-Denver run, assigned to its Kansas nan non mit from them assigned to its Kansas City-Denver from from than 1,049,000 mi. With-completed more September 30, 1944, With-August, 1940, to September 30, 2007ding to Out 2 major overband and according to August, 1940, to September 30, 1944, without a major overhaul and, according to out a major overhaul and shopped until present plans, it will not be shopped this sometime in 1945. The performance of the "City of the output of the follows those of the "City of the output of the outp sometime in 1945. The performance of this "City of locomotive follows those of the & North Denver" of the U. P. traveled more than Western each of which traveled more than Western, each of which traveled more than 3,000,000 mi. in eight years without being shopped for repairs.



BUY MORE WAR BONDS

ELECTRO-MOTIVE DIVISION

ENERAL MOTORS CORPORATION

LA GRANGE, ILLINOIS, U.S.A.



MT. VERNON wheels are made in one of America's most modern and completely mechanized foundries.

MECHANIZATION

PRECISION CONTROL

Mechanical handling plus precise control of all operations accounts for the amazing uniformity in the quality of Mt. Vernon chilled car wheels. Constant research in the Mt. Vernon metallurgical laboratories has resulted in longer life, more ton-miles per wheel. Service records contain ample proof of the remarkable wearing qualities of Mt. Vernon wheels.

MT. VERNON CAR MFG. CO.



Division of H. K. PORTER COMPANY, Inc. PITTSBURGH 22. PENNSYLVANIA

Factories at Mt. Vernon, Ill. • Pittsburgh, Pa. • Blairsville, Pa. • McKeesport, Pa. Newark, N. J. • New Brunswick, N. J.

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 117, No. 25.



Ordinary steel pipe develops embrittlement and fails from fatigue all too quickly when used in the trainlines of freight and passenger cars. That's because it simply isn't made for that kind of service.

But put Ammonoduct pipe to work on the same job, and you get long, trouble-free performance. Ammonoduct defies the shock and vibration stresses encountered in railroad service because it is a soft, open-hearth grade of steel pipe that is made especially for the purpose; a steel that is clean and uniform, free from hard spots and slag inclusions.

Ammonoduct's distinctive properties make it highly resistant to embrittlement and the resultant premature fatigue failure. It has the strength and ductility to withstand coldbending and cold-forming, thus eliminating pre-heating and annealing costs. Ammonoduct is easy to weld and thread.

Ammonoduct can be supplied in any size from ½ in. to 3 in., standard and extra-strong weight. Made to specifications AAR M-111 and ASTM A-53. Install this shock-and vibration-defying steel pipe on your new cars, and on cars now undergoing repair.



AMMONODUCT

THE PIPE FOR TRAIN-LINES AND AIR-BRAKE PIPING

A Tale Cities

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SAN FRANCISCO akersfield LOS ANGELES المنافئة المنافئة divinity with بالفائق من والمناس المناس الفائل المناس المن

RAILWAY AGE

a railroad brought them nearer without trains or tracks

(and profitably too!)

San Francisco-Los Angeles travelers on the Santa Fe formerly were routed via Barstow. This was lengthy and somewhat roundabout. Not so good from either the railroad's viewpoint or the travelers'!

Why not a bus line from Los Angeles over the "grapevine" through Santa Fe — with buses meeting the streamliners at Bakersfield — thus saving hours of time. But the territory is hot and mountainous — hard on vehicles and passengers alike. Could buses be obtained that were luxurious and cool enough to keep passengers comfortable (yet warm enough for elevation changes), dependable enough to maintain schedules, rugged enough to keep maintenance low? They could and were!

and profitably — by complementing the rail service. In other operations, they have paid their way as feeders and as replacements for non-paying branch lines. Perhaps you have a route or a need where the Q.C.C bus — a railroad man's type of motor carrier—can be of profitable help!

BECAUSE Q.C.E BUSES KEEP RUNNING LONGER-THEY'RE THE BUSES TO RUN!



The Q.C.f. Motors Company
PHILADELPHIA

DIVISION OF ACF-BRILL MOTORS COMPANY

OLIVER CAR BUILDER'S FASTENERS

SPECIALIZED FOR EVERY NEED

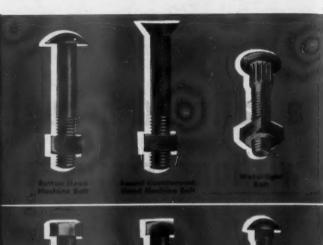
Bolts and fasteners of all types specially designed for railroad car and locomotive work and made by Oliver are illustrated here. Manufactured to meet the exacting specifications and service requirements of the railroads, Oliver fasteners are always your best choice.

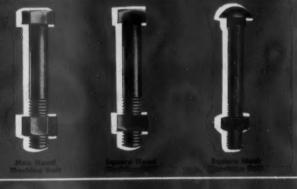


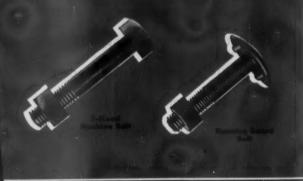
SOUTH TENTH AND MURIEL STREETS
PITTSBURGH 3, PENNA.

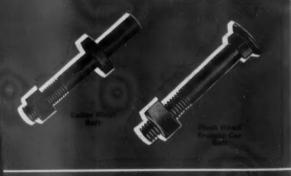
Makers of Bolts, Nuts, Rivets and other headed and threaded products













THE BIG BLOW OF FORTY-FOURI

For days that Old Devil Hurricane had been hurling itself in mad, tempestuous fury through the Atlantic, up from the Caribbean and on past the Florida coast, past Hatteras, past the Virginia capes, on and on to the north.

Then, on September 14, it swept in off Long Island Sound in terrifying violence, ripping green New England countryside asunder and laying down in sullen challenge to the New York, New Haven and Hartford Railroad one of the most severe operating tests in recent rail history.

Truck twisted and warped and buried in sand or submerged in water . . . embankments washed away . . . signals and switches out of commission - . . . culvert and bridge approaches undermined . . . power lines damaged . . . trains held in stations. . . .

Up sprang the whole New Haven organization, with a savvy in treating hurricane damage learned in the Big Blow of 1938, to bring service back to normal after work-weary days in which there could be no rest for an important railroad system doing a big war job.

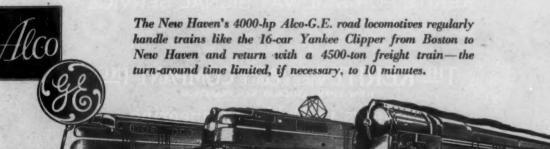
Work trains rolled out to repair the damage. A 100-foot trestle was built at Yalesville, where approaches and fill for a masonry culvert had been washed out. A hundred carloads of material were poured into the repair of a single 2500-foot stretch of right-of-way at Falmouth Beach on Cape Cod. Washed-out bridge approaches at Wareham were repaired, and service was resumed in 18 hours.

In one instance, special temporary cribbing was built—to allow two hospital trains to get through on time to Cape Cod. One train went through only 16 minutes late, the other only 13 minutes late.

Nor was this great job only on the side of engineering and operating. Before the hurricane, the New Haven ordered diners to load all food possible, and when the storm struck, word went out to feed passengers without charge until normal service could be resumed. Five thousand free meals were served in 12 hours. Dining and grill car crews piled hour on weary hour. Telephone and telegraph messages were put through for passengers, and thousands of inquiries answered.

If Purple Hearts were given for such gallant service, the New Haven's tunic would be covered.

-The Trackwalker*



AMERICAN LOCOMOTIVE
Copr., 1044, American Locomolive Company and General Electric Company

· GENERAL

ELECTRI



KERITE FOR RAILWAY SIGNAL SERVICE



THE KERITE INSULATED COMPANY INC.

NEW YORK CHICAGO SAN FRANCISCO

Pioneers in Cable Engineering



GENERAL AMERICAN TRANSPORTATION

CORPORATION

Builders and Operators of Specialized Ratiroud Prolight Curs * Bulk Liquid Storage Terminals * Pressure Vessels and other Welded Equipment * Acrossach Motor Coaches * Process Equipment of all kinds * Fruit and Vegetable Proceeding Service

RAILROAD RADIO

READY FOR ANY and the record



Aircraft Accessories Corporation railroad communications systems are one of the outgrowths of AAC's many years of commercial and military research and production, which is evidenced in part in our building and designing radio and allied equipment for the Government and leading airlines at the rate of more than 30 million dollars per year.

These years of continuous development and production of advanced types of radio equipment have given Aircraft Accessories vast resources of practical "knowhow". This background has been of material assistance in the development of Aircraft Accessories Corporation's railroad radio communications equipment.

AAC Products

IRCRAFT RADIO and

Kansas City, Kans.

COMMUNICATIONS SYSTEMS

instifies it

A IRCRAFT Accessories Corporation's railroad radio communications systems are now available for immediate application to American railroads.

Railroad officers are invited to arrange, through Aircraft Accessories Corporation, for personal, first-hand inspection of the extensive mainline installations of one type of AAC Railroad Communications Systems now in its tenth month of operation on one of the leading railroads in the Heart of America. An accomplished fact, this installation merits your thoughtful investigation...meeting every requirement for end-to-end and moving train to wayside station communication. It has achieved an impressive record in expediting the movement of freight trains, thoroughly demonstrating its efficiency.

From the outset, Aircraft Accessories Corporation has stated and emphasized that: "the application of radio to railroads is a specialized problem." The specific needs, based upon varying operating conditions, must be studied and the proper equipment—space radio or induction carrier system, applied to the railroad.

Instant communication between moving train and wayside stations and between head and rear end of trains supplements existing railroad communication facilities for increased savings in time and operating expense.

ELECTRONICS DIVISION

KANSAS CITY, KANSAS

R124

CESSORIES

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ENGINEERED POWER CONTROLS

New York, N. Y.

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Cable Address: AACPRO

SLASH CAR-ROOF MAINTENANCE THIS EASY POSITIVE WAY

Take a look at your car-roof maintenance bill. You can whittle it down-and keep more cars on the road more of the time-by using a special-purpose Armco sheet steel that gives complete and lasting protection.

This has been the experience of the roads that specify ARMCO ZINCGRIP-PAINTGRIP. First, they get a fully zinccoated steel sheet that can be severely formed without losing a speck of zinc. Then the metal is painted immediately (no pre-treatment) because this exclusive Armco sheet is mill-Bonderized to take and preserve paint.

You can have these extra-durable roofs on your new cars as well as in the replacement panels you buy. Your roofs will then have unbroken zinc protection when they go on the cars. And, just as important, paint lasts several times longer than on ordinary galvanized sheets.

More and more railroads are specifying ARMCO ZINC-GRIP-PAINTGRIP for car roofs and other construction that needs complete zinc protection and a smooth, durable paint finish. You too can have all these advantages. Take the first step today by getting in touch with our nearest district office. Or write us direct. Armco Railroad Sales Co. Incorporated, 3501 Curtis Street, Middletown, Ohio.

EXPORT: THE ARMED INTERNATIONAL CORPORATION



ARMCO ZINCGRIP-PAINTGRIP SHEETS



Molybdenum steel cross-heads stay on the job.



CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS.



MOLYBDIC OXIDE, BRIQUETTED OR CANNED .
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Thy are they all headed for those

PARCEL CHECKIN LOCKERS ?



Because they know how much more convenient, safe and speedy it is . . . just to place bags and parcels in locker, shut door, deposit dime, and take the key . . . millions not only now prefer locker checking - but by their very words and example demonstrate that they look upon this streamlined service as an integral part of modern transportation. Over 60% of parcel checking in rail and bus stations and terminals is NOW handled by self-service lockers. And the number of regular patrons keeps on rising. At no obligation we will gladly make special surveys and recommendations for locker installation, or confer regarding their inclusion in your plans for renovation or new building.

The Trend Is to Parcel Lockers

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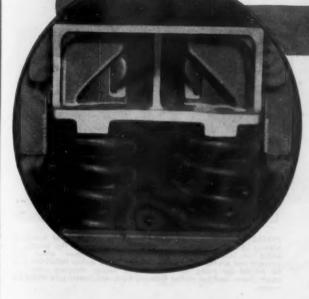
LOS ANGELES

FOUR-FOLD INCREASED

THE TRUCK FOR TODAY'S NEED . . . TOMORROW'S SPEED!

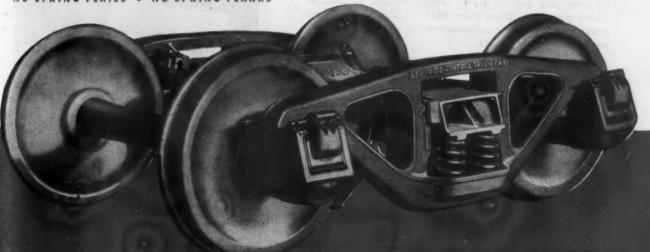
AS FREIGHT SPEEDS MOUNT Ride-Control

Starts to Count!



When used with long-travel coil springs, the A.S.F. Ride-Control Truck (A-3) is a high-speed freight-car truck. And because it makes possible material increases in efficient train speeds, the cars under which this truck is used can carry more revenue tonnage in any given period. Increased speeds provide faster overall schedules, hence, service at lower unit cost . . . the measure of true operating economy.

NO SPRING PLATES . NO SPRING PLANKS



MINT-MARK OF 1 100 CAST STEEL



INDERON

A High-Strength Material, in Large Panel Form, With a Smooth, Hard, Infrangibly-United Plastic Surface!

INDERON was developed as a utility container material for the Army Air Forces, was later adapted to many other war uses where strength, durability and dense, hard surface qualities were essential.

INDERON is waterproof, highly resistant to abrasion, impact, vapor permeation and other destructive forces. INDERON, made by chemically and infrangibly uniting Douglas fir veneers, plastic glues and a fibrous plastic film, is a large-size structural product which needs no surface protection, no decorative treatment, no structural support.

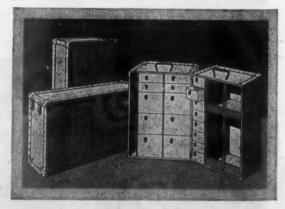
INDERON is stable. It does not warp or twist. It combines beauty, strength, durability and the economical panel form of standard plywood.

What Are the Uses of Inderon?

INDERON has literally thousands of applications in such fields as: Marine, Aviation, Railroad, Bus and Truck, Home, Office, Apartment, Farm and General Industry. Available now only for Army-Navy use. INDERON will become one of the most useful of all structural products in the post-war era. Write NOW for full information!



INDERON introduces a new formulation in the field of laminated plastics. To the hardness and the inert quality of the plastics is added an internal structure of resin-bonded veneer which adds strength and depth to the surface. This quality makes INDERON ideal for freight car siding, car roots ,trailer linings, shipping containers, ceach floors—and for station fixtures, signs, etc. Investigate INDERON



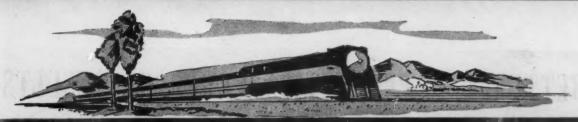
INDERON is successfully serving the Army Air Corps as the preferred material for packaging many vital parts, medical supplies and delicate instruments. INDERON has also been used for many other important war purposes and has proved its ability to resist tropical fungus, termites, weathering and water immersion.

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Ready to Serve * * * 1

ALL honor to the railways for outstanding wartime service . . . all confidence that in the days ahead new goals will be realized . . . achievements that will surpass anything the World has ever seen.

When war-weary veterans from the Battle Front and the Home Front seek relaxation...in luxurious travel comfort...GF will be ready to serve.

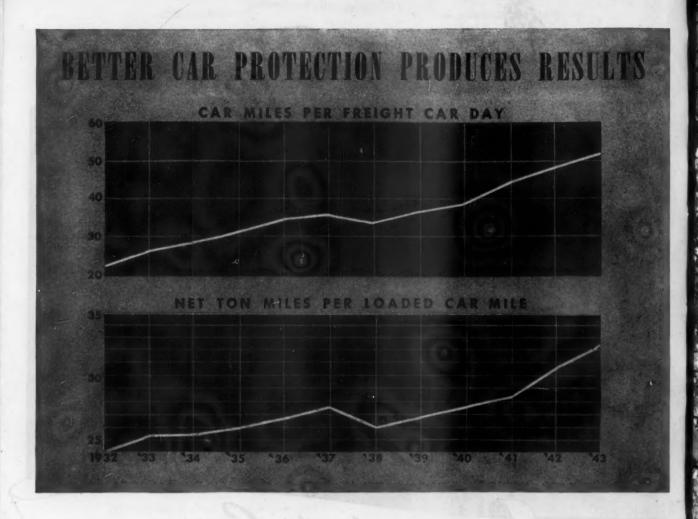
When men and metal and machines are again available to serve a luxury-loving travel-public . . . we shall build Aluminum Chairs, Tables and other items of equipment . . . built to meet the exacting demands of the most discriminating taste.





THE GENERAL FIREPROOFING COMPANY . Youngstown 1, Ohio

METAL DESKS . ALUMINUM CHAIRS . METAL FILING CABINETS . STEEL SHELVING . FILING SUPPLIES . SAFES . STORAGE CABINETS



As shown in the above diagram, both car mileage per freight car day and net ton miles per loaded car mile have been materially increased during the last twelve years, greatly increasing the shocks to which freight cars are subjected in switching and train movements.

THEANTIME, shortage of help has curtailed the scope of preventive maintenance. Yet the cost of freight car repairs per ton mile has been decreased over 10% since 1932—resulting from improvement in operating practices, freight car standards, and shock absorbing devices.

Over 98% of the cars in freight carrying service are A.A.R. construction, and over 96% have Friction Draft Gears.

CARDWELL Westinghouse Draft Gears and Friction Bolster Springs meet the greater shock protection requirements of the accelerated and heavier traffic.



ZEESUUS Greetius

City Will Company



UR third year of war ends this month. They have been years of achievements such as the world never before has known. And ranking high among these accomplishments is the phenomenal record made by America's railroads. In spite of severe handicaps—depleted forces and scarcity of new equipment—they have met every demand made upon them, are still doing it, and with remarkable success.

This is a fitting time for congratulations. The makers of Exide Batteries are glad to offer theirs. And they are proud to know that their product is identified with an industry that has done such outstanding work. For years Exide Batteries have been widely used in signalling systems, air-conditioning and car lighting, Diesel engine cranking, and other services.

And wherever Exide Batteries are used, railroad men have learned that they can count on their Exides for

dependability, long-life, and ease of maintenance. They know that when they buy an Exide, they Buy to Last.

SUPPORT THE 6th WAR LOAN LEND OVER HERE, TILL IT'S OVER, OVER THERE



THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia 32

Exide Batteries of Canada, Limited, Toronto



Economy...

These three will be essential features of railway passenger equipment to qualify for postwar transportation. A. A. R. Tightlock Couplers go far toward assuring these essentials.

A.A.R. TIGHTLOCK COUPLERS

Eliminate slack in coupler contour.

Eliminate noise caused by coupler slack.

Interlocking feature prevents telescoping and turning over of cars.

Improved anti-creep arrangement, and A. A. R. No. 6 operating mechanism prevents train separation.

Will couple with present standard and M. C. B. type couplers, and when so coupled provides substantial reduction in contour slack.

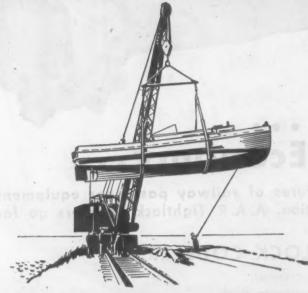
Wear of coupler head and parts is materially reduced, thus increasing the service life.



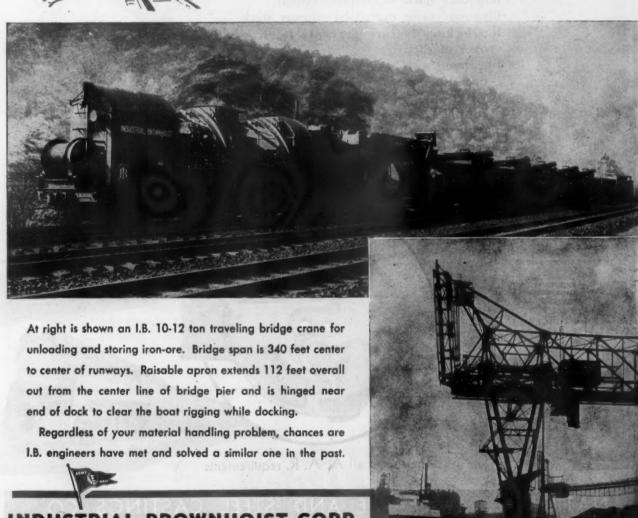
NATIONAL MALLEABLE AND STEEL CASTINGS CO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, III.

On Railroads, Docks, in Plants - Industrial Brownhoist Equipment handles materials with the greatest speed and efficiency



Shown here are three examples of Industrial Brownhoist material handling equipment. At left is an I.B. diesel locomotive crane known the country over for its long life and low cost operation. Below center is shown an I.B. railroad ballast cleaning machine. Clamshell buckets excavate 24 inches below the ties. Ballast is returned to road bed after passing over a series of screens. Dirt removed is carried to the rear by conveyors and loaded into cars. This machine will operate without interference to traffic or adjoining tracks.



INDUSTRIAL BROWNHOIST CORP.

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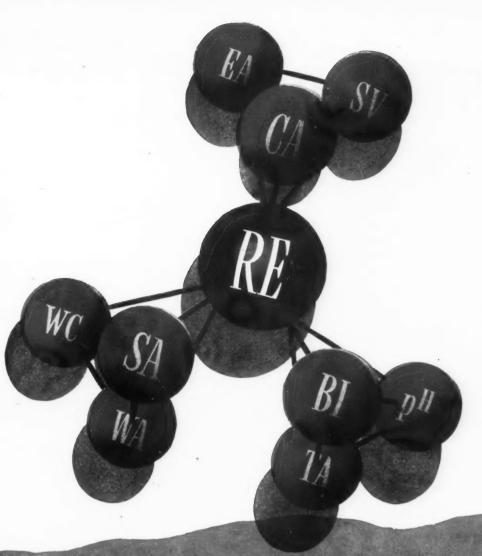




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road
Dirt
and
with-



THIS IS WHAT HAPPENS WHEN YOU WASH A LOCOMOTIVE

Correctly cleaning a locomotive is no simple operation... these elements must go into action...

Wetting Action (WA) must lower surface and interfacial tensions and allow the cleaning solution to penetrate to surface of the base. Emulsifying Action (EA) must disperse grease and oil as tiny globules, and by suspension prevent redeposition. Saponifying Value (5V) must convert organic fats and oils into soluble soaps, and Solvent Action (SA) put soils into solution. Colloidal Activity (CA) must disperse solid soils into minute particles which may then be easily removed. Water Conditioning (WC) removes or controls the elements which cause water, hardness.

Correct Buffer Index (81) assures ability to absorb either alkaline or acid soil, thus prolonging efficiency of the solution. Proper pH assures the correct measure of energy of alkalinity and Total Alkalinity (TA) must supply maximum active cleaning energy.

In formulating a cleaning compound, therefore, it is obvious that no one factor is a magic key to all problems. The answer is in determining the relative value of all these factors as they apply to your problem.

Putting these factors into correct balance is a responsibility you can entrust to Turco chemists—a responsibility for which their two decades of Research and Experience (RE) have well qualified them. Take your problem to Turco

For a fuller explanation of these vital factors, write for Turco's Booklet on your firm letterhood, please.



TURCO PRODUCTS, INC. Main Office and Factors: 6135 S. Central Ave., Los Angeles L. Calif. Southern Factors: 1606. Henderson St., Houston L., Texas. Chicago Office and Factors: 125 West 16th Street, Chicago 9 Offices and Warehouses in All Principal Cities.

HAIRINSUL is Better Insulation



HAIRINSUL is all-hair in blanket form . . . the best form for

effectively insulating refrigerator cars because it never pulverizes, never shakes down or develops ice-wasting spaces. And it never rots,

molds or decays. Even after a thorough soaking HAIRINSUL dries out good-as-new . . . retaining fully its original ice-saving efficiency. Flexible, easy to install . . . and you can get it now. Send today for samples and complete engineering data.

AMERICAN HAIR & FELT COMPANY MERCHANDISE MART . CHICAGO 54



HAIR IS NATURE'S OWN INSULATION salure's protective covering for animal emperature ... one of the bost re-animal hair ... one of the bost re-why HAIRINSUL is accepted as the why HAIRINSUL is accepted as the Anest of all insulating materials

fairmoul ALL HAIR INSULATION FOR REFRIGERATOR CARS 5 OK DRIVING

Less Wear and Tear on Locomotive and Track

oxpok Driving Wheel Centers prevent out of round wheels and flat spots. They permit more effective counterbalancing.

The unique box-section rim and spoke construction provides greater strength with less weight.

With BOXPOK Wheels locomotives stay in active service longer, tire mileage is increased, and maintenance expense is reduced.

Over the Years, Boxpok
Wheels Have Proven Their
Real Value on Hundreds
of Locomotives in Service
Throughout the World.

IENERAL STEEL CASTINGS

EDDYSTONE, PA.

GRANITE CITY, ILL.

HAIRINSUL is Better Insulation



HAIRINSUL for your refrigerator cars you not only get highly efficient insulating material . . . you make

durable you can use it again and again in newer cars as older cars wear out. a permanent investment . . . because HAIRINSUL is so HAIRINSUL is all-hair in blanket form . . . the best form for

effectively insulating refrigerator cars because it never pulverizes, never shakes down or develops ice-wasting spaces. And it never rots, molds or decays. Even after a thorough soaking HAIRINSUL dries out good-as-new . . . retaining fully its original ice-saving efficiency. Flexible, easy to install . . . and you can get it now.

Send today for samples and complete engineering data. AMERICAN HAIR & FELT COMPANY MERCHANDISE MART . CHICAGO 54

L HAIR INSULATION FOR REFRIGERATOR CARS



Less Wear and Tear on Locomotive and Track

oxpok Driving Wheel Centers prevent out of round wheels and flat spots. They permit more effective counterbalancing.

The unique box-section rim and spoke construction provides greater strength with less weight.

With BOXPOK Wheels locomotives stay in active service longer, tire mileage is increased, and maintenance expense is reduced.

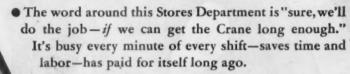
Over the Years, Boxpok Wheels Have Proven Their Real Value on Hundreds of Locomotives in Service Throughout the World.

IENERAL STEEL CASTINGS

EDDYSTONE, PA.

GRANITE CITY, ILL.

How would you move this 3,500-pound gear — if your Stores Department had no Crane?



Today as for 35 years Elwell-Parker is planning ahead with the Railroads—getting ready with Trucks and Cranes to handle bigger postwar loads, at still greater savings.

The E-P Man—your Transportation Advisor in your Main-Line City—understands project location — runway construction — ramps—bridges—tunnels—freight handling and scheduling. He is an allaround "Interior Railroader"—ready to help your progressive thinking with some of his own, and ours.

You know him, of course. Better give him a ring. The Elwell-Parker Electric Company, 4250 St. Clair Ave., Cleveland 14, Ohio.



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Jacksonville ... 5-1384
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Memphis ... 8-1648
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Montreal ... HA 7191
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Check these Main Points

WHEN YOU'RE MACHINING STAINLESS STEEL

Have you a copy of the Allegheny Ludlum "Fabrication Blue Sheet"?

Contains a wealth of reliable, certified data, not only on the machining of Allegheny Metal, but on the best methods employed in other fabrication operations on stainless steel—forming, welding, finishing, etc. Write for your copy—you'll find it highly useful and complete. ADDRESS DEPT. RA-26

COME war or peace, stainless will always be a critical material in the shop. You'll want to keep rejects and spoilage low, as well as machining time and cost—and there are ways to do it.

Cutting speeds can't be as fast as with carbon steel or low alloys. Tools should be high speed steel or carbide-metal tipped, with a generous rake and a chip breaker, if possible. Keep them sharp, and don't allow the tool to ride on the work, to avoid work-hardening.

More important, check the design of the cutting tool itself, and check the possibility of using one of the special easy-machining grades

of Allegheny Metal. Let us help you also to select the right cutting tool from the complete range of Allegheny Ludlum High Speed Steels and Carmet Carbide Tools.



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SUPERIOR 3-WAY FLUE ROLLER

This Tool Saves 80 per cent in Time and Labor

EXPANDS PROSSERS FLARES at One Time

Available for Prompt Shipment

The use of the Superior 3-Way Flue Roller assures even expansion, a tight joint and correctly formed contours—quickly and economically.

The rolling action expands the tube in the sheet, forms a prosser on the water side and flares the end of the tube in one operation. The expansion and prossering is accomplished without scoring the tube.

Allegbeny Ludium
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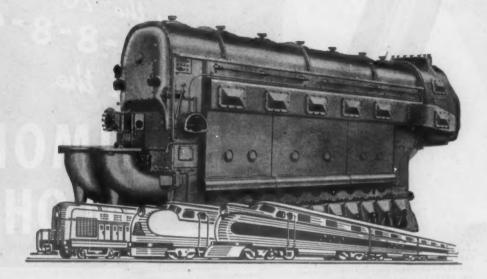
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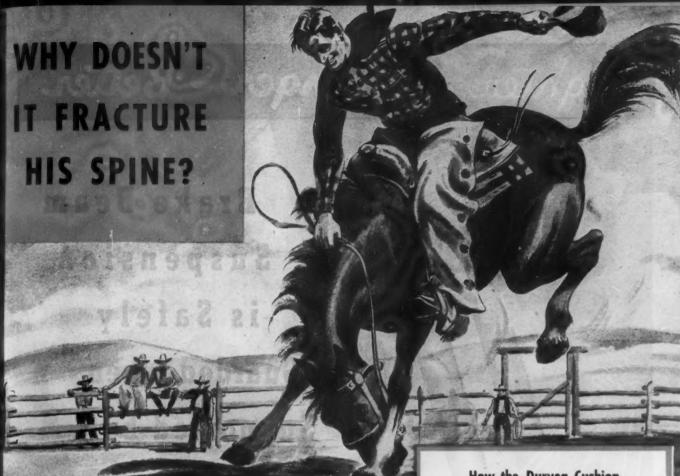
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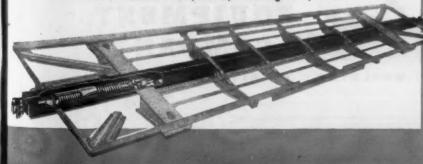
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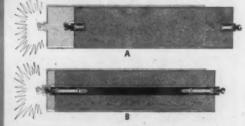
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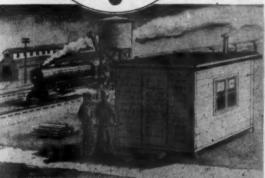


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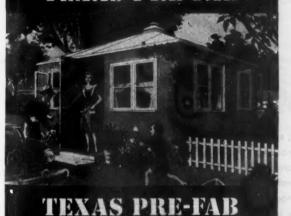


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Locomotive Availability and Utilization

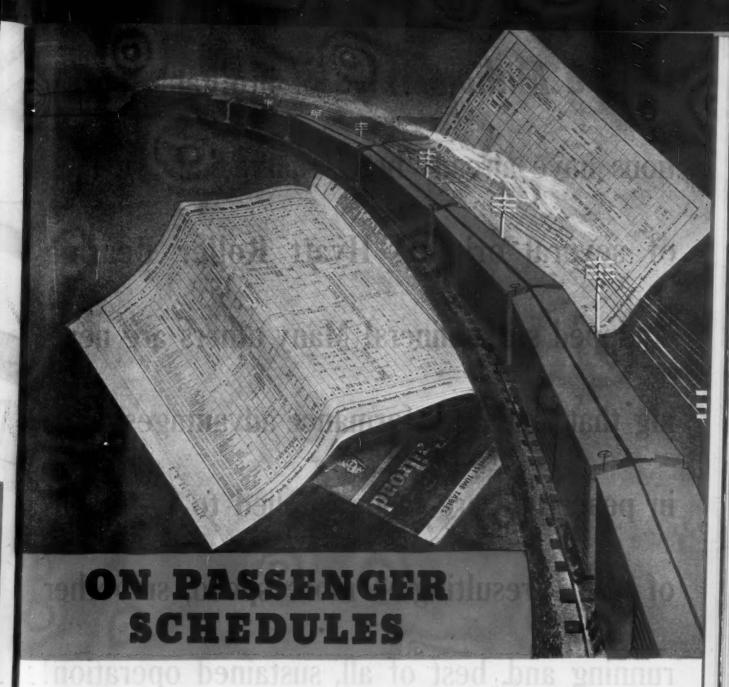
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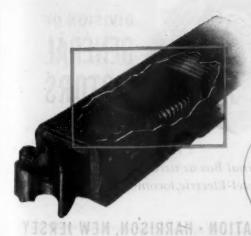
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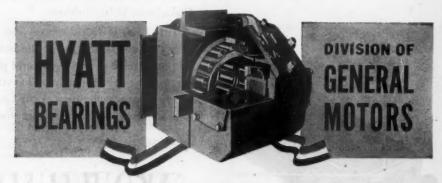
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The Week at a Glance

THE SAFETY RECORD: If some of the individuals who recently have been taking the railways to task-and the Interstate Commerce Commission too-for their alleged sins of omission and commission in the field of safety precautions would devote a few minutes of their time to certain statistics on accidents recently compiled by Charles E. Hill of the New York Central, they would find that the record is better than they realize. As this week's leading editorial points out, lower fatality ratios, both for employees and for passengers, are being maintained in spite of the handicaps resulting from the war, as a result of the unrelenting efforts of the carriers and other agencies. The difficulty in getting these outspoken critics of the railway safety record to see it in its proper light seems to be associated with the apparent conviction of many of them that all railway accidents are train accidents. Elaborate and expensive precautions against the bare possibility of train accidents under highly unusual circumstances may be desirable, but not invariably so if other elements going into the safety record have to be neglected to make provision for these very unlikely situations. The record will be bettered to the extent that lives are saved, and the greatest effort very properly belongs where the greatest opportunity for accomplishment lies.

BROTHERS-AT-LAW: One thing on which the Supreme Court appears to have made up its mind is that the National Mediation Board has the final say when two unions can't agree as to which one is to act for railway employees in bargaining with the carriers about wages and working conditions. Last Monday the justices gave the conductors' brotherhood short shrift when its squabble with the trainmen over the right to sign on the dotted line for Pennsylvania road conductors came up, leaving the O. R. C., it would appear, with no more arrows in its quiver with which to continue this particular bit of brotherly battling. The legal basis of the court's action is indicated in a news item.

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ROGERS HEADS I. C. C.: The selection of John L. Rogers as chairman of the Interstate Commerce Commission for 1945 is reported in the news columns. Having become a member of the commission in 1937, he was in line for the chairmanship two years ago, but was twice passed over because he was too busy with O. D. T. motor carrier problems to take on the extra work.

THE GEORGIA RATE CASE: Georgia is knocking at the wrong door to get "relief" from "discriminatory" freight rates, the alleged conspirators against its injured sovereignty have told the Supreme Court. The twenty railroads accused of overcharging Georgia shippers point out that their rates are under I. C. C. jurisdiction, and that the commission—not the courts—is the proper place to seek redress, because rates are regulated under the Interstate Commerce Act, not under the Anti-

Trust Law. Moreover, say these carriers, Georgia would have no right to bypass lower courts and come directly to the highest court with such a complaint, even if it ought to be disposed of by a judicial, rather than a legislative, body. The legal arguments back of these contentions are set forth in outline this week in a news article. In effect, furthermore, the court has been asked to take judicial notice of the consideration which the commission has already given to claims of "discrimination" made by certain elements in the South, and of its impending decision thereon.

"MIKE" SIGNS OFF: After having been a leader in the railroad industry's achievements during two World Wars (and in the epochal period between), M. J. Gormley is retiring from the position he has held in the A. A. R. since its organization in 1934. An article this week summarizes some of his accomplishments.

EXIT ADOLPH: Of the recentlydropped Assistant Secretary of State, Adolph Berle, the paper "Labor" says with rather unexpected discernment: "He poses as a great Progressive, but has never done much along that line." Mr. Berle may be remembered as the protagonist for the St. Lawrence Seaway who advanced the argument in a radio debate with Judge Fletcher, in effect, that, the Judge's salary being larger than his own, it followed that his own zeal for the public welfare must be greater than the Judge's. With such triumphs of rationality as this, Mr. Berle won distinction as a boy wonder and an intellectual prodigy. A requiem on his public career would probably be premature; leftists such as he have been shelved before when their views had attracted embarrassing attention, only to bob up later, with enlarged opportunities for the advancement of state socialism.

IT'S TIME TO DEBUNK: If the voters and taxpayers are coming to the conclusion that post-war full employment can be achieved only through socialistic public works undertakings that call for spending without stint or limit, it may be because private industry hasn't done a good job of publicizing its own programs for bringing about an equally high level of employment, and not because the politicians' promises are particularly convincing per se. This point is developed editorially in this issue. A corollary fact is brought out at the same time-that there is a lot of wishful thinking going into estimates of the jobcreating potentialities of such public works. If the railroads are to provide their share of post-war full employment, they will require capital from some source. If they are to obtain sufficient private capital, the political atmosphere must be cleared of elements that discourage private investment by making it practically impossible to earn a reasonable profit. The electorate has the power to clear the air, but the railroads first will have to deflate the politicians' efficiently publicized socialistic projects.

BRIDGE REBUILDERS: When the Germans were forced out of central Italy, they very helpfully left behind them a supply of steel railway bridging that simplified somewhat the rebuilding job that fell to the M. R. S. engineering companies. In an article that begins in this issue, General Carl Gray tells how it was used, and who had a hand in the work.

DEFERRED CONTRIBUTIONS: A good round billion and a half dollars of federal money will be distributed among the states in the first three post-war years as a contribution to the expansion and realignment of the public highway system. No provision is included in the bill just passed by Congress for collecting any portion of this huge sum directly from those who benefit from its expenditure, of course, and practically all of it will come out of general tax receipts. An exception has been made in the case of the railroads, however, and they are, in general, to be liable for a share of the cost of grade-crossing eliminations to the extent of 10 per cent of the total outlay for each project. Determination of the actual sums involved will depend on a novel formula, the nature of which is disclosed in the news pages this week, and the railroads apparently are considered not yet to have arrived at the legal age of consent, because Congress has instructed the road builders to spend the money anyway and collect from the carriers later.

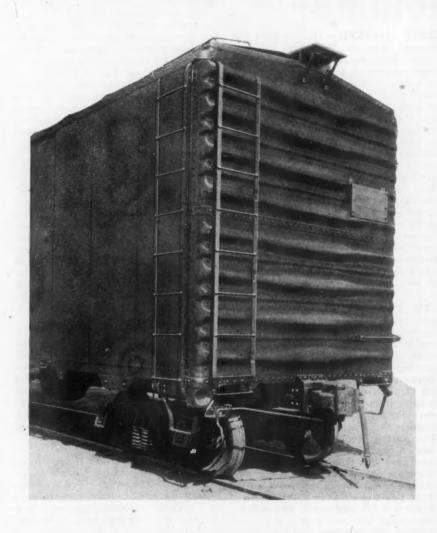
ST. LAWRENCE SETBACK: In spite of F. D. R.'s last-minute intervention in support of legislation proposed to put Congress on record as accepting an international agreement to undertake his pet spending project, the St. Lawrence ditch, the Senate turned thumbs down on the scheme, which was tagged on to the rivers and harbors bill as an eleventh-hour amendment. The Senate tossed out Tennessee-Tombigbee too, but the bill had to get over the conference hurdle before the amount to be fed into this perennial pork-barrel could be definitely calculated.

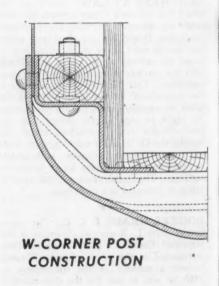
GLOOM CHASER: Railroad men have been doing things that prophets of disaster said were impossible ever since there have been any railroads, and railroad men, if not too tightly shackled, can keep the industry thriving in the post-war era—so don't sell the railroad short. This is the message of the Southern's president, reported on page 921.

A MORAL VICTORY: A majority of the I. C. C. has decided to continue for another year the currently-effective suspension of the freight rate increases ordered in Ex Parte 148, leaving passenger fares unchanged. Along with many of the state commissions, the O. P. A. had endeavored to have the suspended increases cancelled, but the commission evidently has not been sufficiently impressed with the batting average of the bureaucrats' revenue forecasts (which are based on income before taxes anyhow) to be sure the carriers will be rolling in wealth forever.

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RAILWAY AGE

Railroad Safety in World Wars I and II

Charles E. Hill, general safety agent of the New York Central System, has compiled statistics based upon reports of the Interstate Commerce Commission showing the progress made in safety of performance by American railroads between World Wars I and II. In the World War I years 1917 and 1918 there were 6,618 employees on duty killed in train, train-service and non-train accidents. This was at the rate of one fatality for every 570 employees. In the World War II years 1942 and 1943 there were 1,929 employees killed, or one fatality for every 1,400 employees. This was a decrease in the death rate in proportion to the number of employees of 58.2 per cent, although both passenger and freight traffic handled per employee was more than twice as large in 1942 and 1943 as in 1917 and 1918.

An even more striking decrease was made in the number of passengers killed in train accidents. In 1917 and 1918 there were 374 passenger fatalities, or at the rate of .0449 fatalities per ten million passenger-miles. The number of passengers carried one mile increased from 83 billion in 1917 and 1918 to 145 billion in 1942 and 1943; but only 243 passengers were killed in train-accidents in the latter two years, fatalities being at the rate of .0167 per ten million passenger-miles. This was a decrease of fatalities in proportion to passenger traffic handled of 62.8 per cent.

These records of increased safety are remarkable in view of the great increases in traffic handled and in intensity of operation and of utilization of equipment required. The entire railroad machine has, in fact, been speeded up to a degree that a few years ago would have been considered beyond the realm of possibility.

The improvement in safety of performance reflects the greater interest that has been taken in safety education, as well as the steady drive over the years in perfecting operating practices. Along with this must be considered the technological developments during the past quarter century, coupled with the heavy expenditure for improvements in equipment and plant which have made more efficient operation possible. The Harriman Safety Awards and those of the National Safety Council have been added incentives and have served to dramatize the improved safety records that have been made.

Throughout the nation today, wherever railroads operate, railroad officers and employees are being challenged by posters and attractive displays, directing attention to the special Harriman Award to American railroads from the American Museum of Safety for their outstanding record, the citation reading: "Only one railroad passenger was killed for each 336,000,000 miles traveled in 1943."

In spite of the continuance of record-breaking freight and passenger traffic, in spite of the fact that it has been possible to secure little new equipment and facilities in these war years, in spite of the piling up of deferred maintenance and the shortage of man-power, every possible effort should be continued, not only to maintain the safety record, but to improve it.

Efficiency FOR ICTORY

Railroad Constructionand Post-War Employment

The administration in Washington has promised the electorate 60,000,000 jobs after the war, intimating that if private industry doesn't hire that many people, the government will take up the slack. As a matter of fact—with a huge super-highway and waterway program now being actively advanced—the government is going ahead with schemes to provide millions of jobs at the taxpayers' expense without even waiting to see whether adequate employment can be provided by private industry or not.

So much publicity has been given to multitudinous schemes for public works—national, state and local—and so little publicity to private industry's plans for job-creating capital expenditures, that popular opinion is coming to accept these public works uncritically as, somehow, unavoidable, if returning soldiers and discharged war-workers are not to be jobless.

This impression is wholly erroneous, and most harmful both to the country's hopes of maximum productive employment and to the future of private enterprise. The fact, as the New York Times has recently pointed out editorially, is that the government cannot provide a net increase in employment from the proceeds of taxation. The jobs it offers in public works merely extract that much more in taxes from individuals and businesses—money which the taxpayers themselves could otherwise expend to increase employment.

Jobs come into being as a resultant of economic activity, which increases when incentives to investment

become stronger. In the case of private business, the incentive to increased activity is rising hope for profit. With public works, the incentive which brings about investments is the taxpayer's fear of imprisonment. If the government would cease. its inequitable competition with and its persecution of private business and thus remove the fear of losses from the hearts of managements and investors, there would be no need for it to coerce investment by taxpayers in public works.

Public opinion may, however, accept this coercion, without even giving private business a chance to demonstrate its employing power, if private business continues its secretiveness about the job-making plans it is considering, while the promises of employment through public works projects continue to be propagandized to the full.

The railroads could take on a large share of the 60,000,000 employment total, directly and indirectly, if they were given even a half-way assurance of a fair chance to compete for traffic in the post-war period. This is illustrated in particular by an article in the current issue of "Fortune" magazine, telling in detail how the Rock Island could easily spend \$95 millions for self-liquidating projects and several times that sum if it should decide to make "super-railroads" out of its more important main lines. Comparable expenditures by other railways would make a national total of \$5-\$10 billions. All that can hold the railroads back is a general political atmosphere calculated to make private investors hesitant, especially as regards investments in transportation.

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There is, therefore, every reason why railroads and other businesses should give prompt and widespread publicity to their plans for job-creating improvements. They do not need to promise these expenditures unconditionally, but should indicate, rather, what they are prepared to do if the government will give them a reasonable hope to earn a fair return on additional investment—including a minimum of competition from socialistic public works. It is time to debunk the false claims to job-creation of these elaborate public works programs, and to show, instead, the vastly larger number of jobs in private industry which these public-spending programs will reduce if not altogether preclude. The people cannot know these things unless they are told.

Dreaming Is Not Unlawful, as Yet



Handling Crews

The handling of train and engine crews has assumed a very different aspect during war-time when the percentage of inexperienced employees is so much greater than before. Therefore, it is pertinent to review what is being done today on a division that is practically the largest in the country so far as traffic volume and number of crews employed are concerned.

This particular division does not use crew assignment boards. All vacancies are bulletined for a period of five days on a typewritten list and placed at all stations or engine terminals where men hold seniority and are affected by these positions. The bidding for open or new positions closes ten days after they have been bulletined. Usually the senior applicant is assigned within five days and a notice is properly posted to this effect. If two or more vacancies are advertised at the same time, applicants may bid for one or all of them, stating their preference. Failure to bid does not, of course, affect seniority. Passenger, freight and yard crews, both in engine and in train service, are handled under this arrangement, the crew callers handling the engine crews and the trainmaster handling the train crews.

The names of all extra men are placed on a list which is kept at stations or terminals and, as they are used, the symbol or number of the train for which they are called for and the time on duty is noted after the names. Upon completion of assignment the employee is marked up in accordance with the time off duty which establishes his proper place on the list following the last man marked up. All extra crews are called in accordance with the "first in and first out" rule, under the direction of the crew callers or crew dispatchers at stations, yards or terminals. If there is any question of improper calls, the matter is referred to the trainmaster for settlement.

Applications for lay-offs are handled in conference between brotherhood representatives and the trainmasters. At these conferences the number of days or miles made is checked to see if reduction in force is actually warranted. By means of the management and the employees working together in this manner, misunderstandings are avoided.

Employees may receive permission for leaves of absence up to 30 days from the proper officer without written permission, but if the leave is to extend more than 30 days, the employee must have written authority from the superintendent. Leaves of absence are limited to seven months, but, after the expiration of 90 days, all remaining time of any leave of absence is deducted from the employee's seniority. All leaves of absence for more than 30 days are posted on the bulletin board. Leaves of from two to five days are left to the discretion of the crew callers.

This method of handling crews has the advantage of being simple and easily worked out. It has the further advantage that since both the brotherhood representatives and the supervisors thoroughly understand what is being done and are informed of all the reasons before action is taken, misunderstandings that might result under other systems of crew handling are eliminated.

Complacency Dangerous

Major General Hershey, in charge of selective service, has warned that the drafting of men will continue unabated for some time. However near Germany may be to final defeat, the casualties in recent weeks indicate clearly that there is still a lot of war to be fought in Europe, in addition to the considerable task that still faces us in the Pacific. These are sober facts which should be heeded by those inclined to be over-optimistic. They add up to one thing—that American railways still have a whale of a job of war-time transportation ahead of them before the final victory is won.

At a meeting of the Southeast Shippers Advisory Board held appropriately on the third anniversary of Pearl Harbor, representatives of shippers and the railways reviewed their accomplishments of the last three years. Because of mild climatic conditions suitable for year-around training, the southeast has had more than its share of military camps and other war-time installations. For this reason, both the railways and the shippers have ample cause for congratulating themselves on the job of war-time transportation that has been done in that territory. There was however, no evidence of complacency or any inclination to ease up on the hard work and excellent co-operation which have thus far been responsible for the accomplishment of an extraordinarily difficult job. Speaker after speaker, while expressing a justified pride in what his industry or his railway has done, sounded a warning that the job is not by any means complete. In view of the fact that, in various localities, there have been evidences of smugness and an inclination to lean back on the oars, this spirit on the part of those charged with promoting war-time transportation in an important section of the country was most heartening.

Such a realization of the task ahead should not be confined to any one section. We Americans owe our success in this war to teamwork and lack of sectionalism. It has been said that, in foxholes, there are no atheists. It is equally true that, either at home or overseas, there is room only for Americans, and unhyphenated Americans at that, whatever their parentage may have been. Also, while there is reason for a healthy optimism as to the final outcome, there is no room whatever for smugness and complacency. Almost everyone concerned with transportation in this war has done a good job and has kept pace with the prodigious feats of production made possible only by the spirit of free enterprise which is the heritage of the nation. Whatever our military successes, however, those who are attempting to pat themselves on the back are a menace until the war is won.



Figs. 1-3 Show the Reconstructed Bridge Over the Volturno River at Capua—Fig. 1. (Above) Part of the Completed Structure, with British Military Railway Steel Trestling Used for Pier Construction

Rebuild Blasted Bridges in Italy

Army railroaders restore "Railroad Road to Rome" in record time under great difficulties. Use novel, rapid construction methods to speed supplies to combat troops

By Brig. Gen. Carl R. Gray, Jr.
Director General, Military Railway Service

PART I

ILITARY railroading differs from commercial operation primarily in that, usually, before traffic can be handled, a demolished or greatly damaged railroad has to be restored. With the thought that railroad men in America would be interested in what their colleagues overseas have had to deal with in this respect, we are reporting herein on our experiences with the reconstruction and rehabilitation of bridges and track.

This report is written so that, in days to come when people talk about the performance of the Military Railway service of the Transportation Corps in Italy, there will be something in the record about the engineers in the "A" companies; not forgetting the bridge carpenters and the gandy dancers. These men were the pioneers, who pushed ahead directly behind the fighting forces, dragging their rail and their bridge material, their ties and their temporary water and oil tanks over shell-cratered roads. They reconstructed a railroad out of what, in many cases, was almost totally destroyed track.

"Jerry" was rather thorough in his demolition and our Air Force was more than accurate in its bombings. When you add up those two destructive actions, it meant hard



Fig. 2—End View of Completed Structure, Showing Some of the Bolted Construction

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work for the rebuilders. The plan of the Director General, M. R. S., for the rehabilitation of the railroads contemplated the handling of that entire work from his own headquarters through the medium of the engineering sections of the railway grand divisions, the work to be executed by the "A" companies of the five U. S. railway operating battalions of his command; and, from the British side, through the engineering section of the office of the Director of Transportation (British) through the commanding officers of maintenance and construction groups to their maintenance and construction companies, placed at his disposal by the allied Commander-in-Chief.

Colonel Benjamin H. Crosland (before the war division engineer of the Frisco at Fort Scott, Kan.), has been the assistant general manager—engineering, or chief engineer, of the Military Railway Service in the Mediterranean Theater from the time of our arrival in February, 1943. His chief construction engineer on the American side of the staff has been Lt. Colonel Herbert G. Dennis (before the war bridge engineer of the Rock

Island at El Reno, Okla.).

Colonel Crosland's chief maintenance engineer first was Lt. Colonel Ralph E. Sherer (division engineer of the Soo Line) and is now Lt. Colonel Robert J. Crane (special engineer with the New York Central). The bridge engineer has been Major William L. Hartzog (formerly on the chief engineer's staff, of the Atlantic Coast Line), and the communications and signal engineer has been Major Francis J. Murphy (formerly assistant general signal foreman of the Great Northern). The superintendent of water service is Captain Robert C. Carrick (formerly service engineer of the National Aluminate Corporation), and the supervisor of work equipment is Captain Edward P. Sima (formerly supervisor of work equipment on the Milwaukee).

A. C. L. and N. Y. C. Units

Corresponding to the British maintenance and construction groups, there are, on the American side, the engineering sections of the railway grand divisions. One of these grand divisions, the 703rd (affiliated with the Atlantic Coast Line), has carried a great portion of the reconstruction of lines Naples and north. The railway maintenance of way superintendent is Lt. Colonel Charles S. Sanderson (before the war assistant engineer of structures on the Atlantic Coast Line); the railway bridge and

This is the second report of Gen. Gray, through the Railway Age, to railway men back home, on what the Army railroaders are doing overseas. His first account, which was published in the Railway Age of March 25, 1944, related what the Military Railway Service in the Mediterranean Theater had accomplished since its landing in North Africa in the fall of 1942, with reinforcements in the winter and spring of 1943. The present account deals primarily with the work of the "A" companies of the five U. S. railway operating battalions in rebuilding enemy-destroyed bridges in Italy. In subsequent articles, if conditions permit, Gen. Gray hopes to report on the reconstruction and adaptation of shops for repairs to locomotives and cars; on transportation and car-handling problems; and on the handling of military stores and supplies.

building superintendent is Captain Victor E. Williams (formerly bridge and building supervisor on the Southern); the railway track supervisor is Captain Joseph W. Hale (before the war assistant engineer of the Atlantic Coast Line); the railway signal maintenance superintendent is Captain Stuart H. Dean (formerly signal instructor on the Santa Fe); the boiler water treatment officer is Captain Robert J. Griffin (before the war chemist on the Atlantic Coast Line); and the railway water service superintendent was 2nd Lieutenant Carl E. Quist (former engineering department employee of the Soo Line), and is now 2nd Lieutenant Robert C. Cushman, a graduate chemical engineer.

In the 701st Railway Grand Division (affiliated with the New York Central), the engineering section is composed of a railway maintenance of way superintendent, who is Major Thomas R. Patterson (formerly roadmaster of the Soo Line); the railway bridge and building superintendent is Captain Kenneth L. Miner (before the war civil engineer on the New York Central); the railway track supervisor is Captain Justin G. Toomey (formerly trainmaster on the Great Northern); the railway signal maintenance superintendent is Captain Monier H. Thomson (former assistant engineer of

signals on the New York Central); the boiler water treatment officer is Captain Howard C. Nelson (before the war chemical engineer for the Southern Pacific); and the railway water service superintendent is 2nd Lieutenant Kermit R. Cotes (formerly analytical laboratory assistant for the Bangor & Aroostook).

In the 704th Railway Grand Division (affiliated with the Great Northern), the engineering section is composed of a railway maintenance of way superintendent, who is Major David C. Kopp (formerly roadmaster on the Great Northern); the railway bridge and building super-



Fig. 3-Another View of the Finished Bridge



Figs. 4-10 Illustrate Reconstruction of the Bridge Crossing of the Garigliano River at Minturno—Fig. 4 (Above) Aerial View of Complete Destruction of Bridge

intendent is 1st Lieutenant Rudolph G. Schultz (before the war civil engineer for the Southern Pacific); the railway track supervisor is Captain John E. Shaw, Jr. (formerly section foreman on the Southern Pacific); the railway signal maintenance superintendent is Captain Roy J. Nester (before the war assistant signal supervisor of the Texas & New Orleans); the boiler water treatment officer is Captain Wilbert F. Arksey (formerly assistant engineer of water service on the Great Northern); and the railway water service superintendent is 1st Lieutenant Marshall Jarratt (formerly assistant water and fuel supervisor on the Southern Pacific).

The "A" companies of the five railway operating battalions available were Company "A" of the operating battalion affiliated with the Santa Fe, whose captain is Virgil I. Kessinger (formerly maintenance of way superintendent on the Santa Fe); Company "A" of the operating battalion affiliated with the Illinois Central, whose captain is John R. Wartchow (formerly with the Illinois Central as supervisor of track); Company "A" of the

operating battalion affiliated with the Texas & New Orleans (a part of the Southern Pacific), whose captain is James N. Fuller (formerly roadmaster of the Southern Pacific); Company "A" of the operating battalion sponsored by the Southern, whose captain was James M. Boles (formerly supervisor of track on the Southern), and now is Captain James G. Beard (formerly track supervisor on the Southern); and lastly, Company "A" of the operating battalion affiliated with the Missouri Pacific, whose captain was Harry H. White (formerly roadmaster of the Missouri Pacific), and now is Captain Vester D. Raessler (formerly bridge and building supervisor on the Illinois Central).

Fig. 6—A Close-Up of One of the Piers Under Construction

An "A" company of a railway operating battalion is the maintenance of way company and its T/O's provide for five officers and 229 enlisted men. The captain is designated as the railway maintenance of way superintendent, one first lieutenant as railway track supervisor, one first lieutenant as railway bridge and building supervisor, one first lieutenant as railway signal maintenance supervisor, and a second lieutenant designated as assistant maintenance of way superintendent. The track maintenance platoon of the company contains six track maintenance sections and the bridge and building maintenance platoon contains three bridge and building sections; then, there is the railway signal maintenance section. Great care was taken to provide this company with air compressors, tractors and general railway construction and maintenance tools and equipment, and equal care was taken to secure from the sponsoring railroads officers with experience designated by the assignments indicated. Upon the shoulders of these practical railway con-

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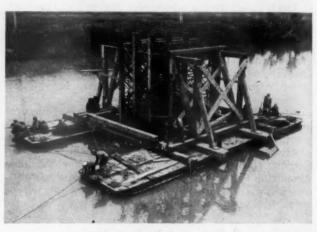


Fig. 5—Intermediate Piers Were Constructed of British Military Railway Steel Trestling, Supported on Special Camel's Foot Adjustable Bearings



struction and maintenance engineers has fallen to date in Italy the building and rebuilding of 2,642 miles of heavily damaged track, 30 miles of tunnels and 44,350 ft. of bridging of various types of design, as well as reconstructing of water and fuel stations at different locations, and rehabilitating and cleaning up miles of yard tracks in large terminals and at intermediate stations in record time. The Director General has expressed his admiration of and amazement at their achievement on secure for them many awards; he has also given many individual headquarters citations.

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This account would not be complete without special recognition being given to the enlisted men of these "A" companies. Many of them are experienced in railroad maintenance and construction work. They are above the age normally found in the Army and are more mature because it was necessary to have experienced men.

Enlisted Men Were Seasoned Railroaders

When the Director General decided to give recognition publicly to the railroad construction and maintenance men who have contributed so materially to the allied war effort in Italy, he felt that he could best illustrate their unusual service by placing before the railroad men in America a detailed account of certain phases of their work. He, therefore, chose the crossing of the Volturno river at Capua, the crossing of the Garigliano river at Minturno, the crossing of the Volturno river at Cancello and the crossing of the Savone river gorge just north of Sparanise. Colonel Crosland was asked to write the details, and his report follows. The pictures forming a part of the report were taken by our headquarters staff photographer, Sergeant Donald S. Lidikay, who before the war was assistant chief clerk to the general yardmaster of the Union Pacific at Denver, and photographer for the road's Colorado division.

The railroad to Rome was difficult. The retiring enemy had done an exceptionally good job of railway demolition. Rails, frogs and switches were blown; ties

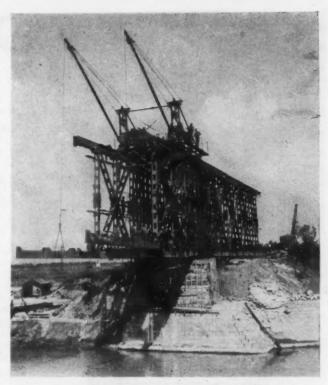


Fig. 8—By the Time Cantilever Érection of the First Span Had Passed the South Abutment, the Pouring of the Abutment Had Been Completed

plowed up and broken; bridges and buildings flattened; communications and water supplies destroyed. It was a problem of materials for skilled railroad construction troops. The troops were extraordinarily good, though perhaps not as plentiful as could be desired. The materials at hand were not entirely adequate to meet the situation, and for this reason it was necessary to a large extent to cannibalize over a wide area for suitable materials. The original bridge at the crossing of the Volturno

river at Capua was a doubletrack through girder structure of seven spans on masonry piers and abutments with an overall length of 525 ft.

The steel was entirely demolished and blown to the river bed. The abutments and all but three of the masonry piers were completely destroyed. It was decided to restore the structure as a single-track bridge, using captured German military steel railway bridging. This bridging, which is known as the Roth Wagner design, had been used extensively by both the German and Italian armies in making repairs to railway structures. It is a most interesting collection

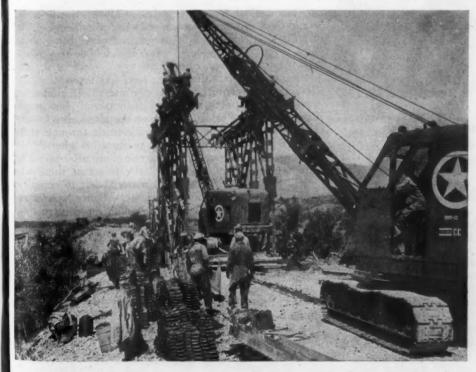


Fig. 7—Erecting the Counter-Balance at the South Shore to Permit Cantilever Erection of the First Span



Fig. 9—As Erection Passed the Second Temporary Pier Trestling, Parts of the Counter-Balance Span on the South Shore Were Cannibalized to Complete the Final Span



Fig. 10—The Completed Span, After the Temporary Trestling Had Been Removed

of separate structural shapes, assembled entirely by bolting, much on the same order as a small boy's erector set in America. It can be used for spans of any length from 10 ft. to 250 ft. It is hardly economical, however, to use it for spans of less than 50 ft. For spans up to 150 ft. in length it is erected normally as a through pony truss structure; for spans of 150 ft. to 250 ft. it is necessary to construct the trusses twice as deep with overhead lateral braces in the nature of a through truss span. Due to the position of the three remaining piers and the great necessity of speed in erection, it was decided to restore the crossing by the use of three 150-ft. spans and one 80-ft. span, making a total of 532 ft. in the overall struc-This additional length permitted putting the ends of the structure on solid ground beyond the shattered abutments.

Two methods of erection were used on this structure. One 150-ft. span and one 80-ft. span, coupled together to make 230 running feet of bridging, were erected on the north bank and were subsequently launched by rolling the entire unit to place on the prepared piers. Simultaneously, two 150-ft. spans were erected on a cantilever basis in place from the south shore. To provide counterbalance for the cantilever construction, one 150-ft. span, partially bolted, was erected on the shore with its north end on the south abutment. Cantilever construction was then commenced across the water gap to the first pier, constructed of British military railway steel trestling, after which the 150-ft, span erected on the shore was progressively cannibalized and erected as a cantilever to reach the second pier. In constructing the bridge on a cantilever basis the individual parts were handled by a small hand-powered crane mounted on rollers on top of the structure. Cranes of this type were specially designed for erecting this type structure and were captured from the enemy with the bridging material.

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Fig. 1 shows a part of the completed structure, giving a clear view of the British military railway steel trestling used for pier construction, which was placed on the footings of the blasted masonry piers. Figs. 2 and 3 are

views of the completed structure.

The work was carried out by "A" company of one American railway operating battalion, assisted by the bridge and building section of a second American railway operating battalion, and one company of Italian railway construction troops. The interval from the time erection started until the structure was sufficiently completed to carry a train was 22 days.

Crossing the Garigliano River at Minturno

In erecting the bridge across the Garigliano river, south of Minturno, no action whatever could be taken until the site was released by the tactical commander. It was important, however, that this river be bridged in the shortest time possible. Working under shell-fire, careful reconnaissance was made and all plans for the erection were worked out in as much detail as possible in the rear areas.

The original structure was a 236-ft. double-track single-span through truss on masonry abutments, 47 ft. from base of rail to bed of stream, the water being about 22 ft. deep. The steel span was completely destroyed and blown into the river. Fortunately, the force of the explosion was so great that all the steel was thrown into the clear, down stream from the bridge site. Both abutments were destroyed, as is evidenced in the aerial photograph, Fig. 4. It was decided to restore the abutments in concrete and to erect a 240-ft. single-track through truss span of captured Roth Wagner military bridging.

Due to the necessity of carrying on all operations simultaneously, and because of the fact that there was barely enough of the captured material left to complete the span, leaving nothing for counter-balance, special arrangements had to be made to handle the construction. It was decided this bridge could be erected most rapidly by the cantilever method. The north shore was entirely inaccessible for the handling of materials, which led to the decision to carry out the entire erection from the south shore.

Obviously, it would be impossible to erect a concrete abutment on the south shore and erect the steel resting on this abutment at the same time. To take care of this situation, special steel columns were fabricated from materials salvaged out of wreckage of a local steel mill, (Continued on page 928)

Gloom Over Railroads' Future Unjustified

Industry cannot dispense with carriers' unique ability to produce economical mass movement of multiple shipments-Only despair for America as a whole can justify despair of carriers' future

WHEN we began talking about na-tional defense several years ago, the prophets of doom had a field day. They shouted that the railroads would certainly collapse under the pressure of the traffic load then in sight. They screamed for government operation of railroads. They derided the calm assurances of railroad men in November, 1940, that the American railroads "will continue to meet to the full the demands of commerce and the needs of national defense." They even set the date on which the railroads would bog down in complete failure.

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So what happened? The railroads simply proceeded to handle a volume of freight and passenger traffic that was far greater than the volume that the crystal-gazers had labelled as "the impossible." As time went on, the traffic load became heavier and heavier. The "viewers-with-alarm" hopefully kept moving ahead the tragic day of collapse. The railroads kept right on railroading as if nothing had even been said about their capacity to do any job that needed to be done.

One of the principal reasons for the pre-Pearl Harbor rout of those who were so ready to bury the railroads was, I think, a peculiar sort of ignorance that seems to characterize those who work on our railroads; an ignorance of what 'impossible" means. Railroaders seldom waste much time speculating as to whether a job can be done or not. They just pitch in and do it, if it needs doing. Perhaps it's because the whole history of railroads is a continuous fight against the elements; against time, space, weight, friction, and inertia; against the "im-possible" of life. Whatever the cause, railroad folks never seemed to hear the prophets of disaster before the war; they were too busy getting the day's job done.

I assure you that the men and women who man our railroads haven't changed much in this respect; then don't sell the railroads short.

The Railroads Were Ready

So far in this war, the railroads have carried almost double the load they carried in the last war. They have accomplished this staggering task with only two-thirds of the locomotives they had then; with only three-fourths of the freight and passenger cars of 1918; and with but three-fourths of the employees.

This article is an abstract of an address by Mr. Norris to the Chamber of Commerce of the State of New York on December 7.

By E. E. NORRIS, President, Southern Railway

Yet the job has been done so smoothly with the bigger and better equipment we have now that it becomes news only when the higher officers of the Army, the Navy and the government publicly express their appreciation for the railroads' great contribution toward win-

ning the war.

There are many reasons why this superlative job of war transportation has been done so successfully. One-the traditional determination of railroad people to get the job done-I have already mentioned. Another is the fact that the railroads made their plans for this emergency more than 20 years ago, while the lessons of World War I were fresh in their minds. It was then that the railroads, working with the Army and the Navy and other government departments, worked out detailed plans to avoid bottlenecks in transportation, to prevent congestion at ports and to escape the paralyzing effects of using freight cars as storage warehouses should the tragedy of war ever touch our country again. It was then that the railroads began enlisting the cooperation of the nation's commercial shippers to get the utmost service out of railroad facilities; cooperation that has enabled the railroads to meet, not only the tremendous demands of war, but all the civilian needs of the home front as well.

The Railroads Had Faith

Still another reason for the railroads' readiness when war came is the fact that, during the two decades immediately preceding Pearl Harbor, they spent more than \$11 billions for additions and improvements to their property. It was spent courageously-and wisely, as our experience in this war has shown-in spite of increasing competition from highway, waterway and air carriers. It was spent because of faith in the future of the railroad industry and of faith in the destiny of our country. And, so I repeat: Don't sell the railroads short!

There are few industries in this country that have been, and are, more progressive, more alert to invention, more consistently interested in scientific research and technological improvement than the railroads. The contact of the public with technological progress in the railroad field is limited. The railroads do not produce a tangible product which can be seen, tested, purchased and used by individuals. Instead, the railroads sell only services, and individuals have little opportunity to measure improvements in the machine which renders such services. Technological progress on the railroads is largely "behind the scenes," it shows up mostly in the statistics of safety, of tonnage handled, dependability, economy, efficiency-and sometimes solvency in the face of pyramiding costs and declining revenues.

Exceptions, of course, are such pioneering achievements as the air-conditioning of passenger trains, the streamliners that have so captured public fancy and our powerful new Diesel locomotives, to name a few of the more dramatic innovations of recent years.

The Result of Research

But as a matter of fact, almost every cog in the railroad's transportation machine has undergone comparable improvement in recent years. Rail is infinitely better and stronger through new processes of manufacture. Cross-ties have been improved and their life lengthened by chemical treatment. Track is better maintained by the use of new roadway machines. Steam locomotives have been improved tremendously in efficiency. Diesels are setting up ever higher records of sustained work, longer runs, heavier frains and economical operation. Every detail of our freight and passenger cars -their wheels and trucks, their draft gear, their braking systems, their design—has been immeasurably improved. Signal and communication systems have been revolutionized by new develop-

Road, yard and station operations have been modernized and speeded by such improvements as centralized traffic control, elaborate interlocking plants, remote-controlled car retarders, spring switches, teletype, automatic block signals, material handling machines, cab signals and a host of other applications of modern invention to the art of rail-

All these things are the result of intensive and continuous research that has been carried on for years by the individual railroads; by the Association of American Railroads and its predecessor organizations; by the railway supply industry; and by some of the country's finest technical schools.

From the gruelling experiences of our war job, the railroads and those who man them have learned many a priceless lesson-how to do more with less; how to get more use out of every tool and facility and car and locomotive; how to make every dollar of expense

and every move count.

For two years a group of more than 150 of the keenest experts in the railroad business have been quietly, but diligently, studying every phase of railroading; every economic and scientific promise of the future; all of the competitive forms of transport and their possibilities; and the probable transportation needs of a nation reconverted to the pursuits of peace. This group expects to complete its initial studies next year, after which the work will be continued, both by the Association and by the individual railroads.

Preparing for tomorrow's job has always been so much a part of railroading that we forgot to label as "post-war planning" what we have been doing. Could it possibly be wise to sell the railroads short when they are as alert and progressive and research-minded as the

record proves?

Let's be sure that we all understand what railroads are. They are unique in the field of transportation in that they alone combine the flexibility of separate carrying units that can be distributed loading and unloading anywhere and anytime, with the economy and the dependability of mass movement in long trains on privately-owned "way" that is relatively immune from the vagaries of season and weather.

The symbol of a railroad is not, as many may believe, the dramatic steam locomotive or the streamlined Diesel, but rather a flanged wheel on a steel rail. It is the flanged wheel on a rail that makes the train possible; that enables many carrying units, coupled together, to "track" behind one locomotive. The

result is, in turn, true mass transportation, without which neither mass production nor mass consumption can exist.

Think of what these inherent characteristics of railroads mean in terms of their post-war future. A freight train, for instance, may be composed of any number of a variety of cars, from 50 to 150 or more, depending upon the needs of the day. Each one of these cars could conceivably have been loaded at a different location and at a different time and with different kinds of freight -coal in open-top hopper cars, heavy machinery on flat cars, pipe in gondola cars, vegetables in ventilated box cars, cattle in stock cars, automobiles in wide-door box cars, chickens in poultry cars, canned goods in standard box cars, cement in covered hopper cars, merchandise in container cars, oil in tank cars, cordwood on rack cars, fruit in refrigerator cars.

Peacetime Predictions

The resulting train will be handled from terminal to terminal by a crew of only five men. Upon arrival at destination, the train will be broken up and the cars distributed to many different loca-

tions for unloading.

Compare this method of handling the nation's freight with any other method you know about. Figure out, for instance, how many trucks and drivers or how many airplanes and pilots would be necessary to move just one trainload (say about 2,000 tons) of freight from New York to Chicago. Remember that the railroads handled almost a billion and a half tons of all kinds of freight last year.

We hear a lot these days about the intense competition that the railroads will face when peace comes. Nevertheless, I predict that the railroads will

still be handling by far the major portion of America's freight and passenger business just as they have always done -and just as they will always do until someone invents a form of transport that can top the railroads for economy, and match them in dependability.

I do not underestimate the keenness of the competition that the railroads will face after the war. But all the traffic that all the railroads' competitors will be able to attract will not, in my opinion, be enough, either to justify their extravagant predictions or to bring disaster to the railroad industry. For no one can question these basic facts:

1. In the post-war world, with heavy taxes; relatively high labor and material costs; stiff competition in all fields, economy will continue to be one of two major factors in determining what form of transport gets the lion's share of the per

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nation's traffic; and,

2. With most of the nation's post-war business conducted on the small inventory system with much of its production flowing from assembly-line techniques. dependability and regularity of delivery will continue to be the other major factor in determining what form of transport will get the most of the available freight.

The railroads haul anything and everything, anywhere, at any time, in any kind of weather, at an average cost to the shipper of slightly less than one cent per ton per mile. Until some other form of transportation can say that, I repeat: Don't sell the railroads short.

The railroads are part and parcel of every industry, every commercial and agricultural activity. The only future they have is the future of human enterprise in this great land. Those of us who proudly call ourselves railroaders in our post-war planning, will not sell America short.

Why Public Relations Effort Needs Expansion

The railroads will not be able to survive as private enterprises unless they have behind them the support of the favorable opinion of the American people. It is true they are going to need much else besides this, but at least they must have this favorable opinion or they cannot survive.

No longer is this country a representative republic such as the founders intended. It is now almost a pure democracy with a threatening tendency to become something else which fills some of us with foreboding. This being true, the railroads are going to have to look for the protection of their interests to the sound, enlightened opinion of the people, and no longer to rely for protection upon legislators, congressmen, commissions, or the courts. What do the

people think of the railroads?

I have collected hundreds of comments which have been made during the course of the last year-comments from men in high places-cabinet officers, governors and senators, high officers in the army and navy, editors, commentators, magazine writers, all to the same general effect. I could rest my case on their testimony and conclude that the opinion of the American people as to the railroads' war effort is favorable. However, I bring some corroborative evidence. In the Southwest we had a so-called public opinion survey with result that we found 84 per cent of those inter-From an Address by Charles H. Woods, General Solicitor, A. T. & S.

viewed expressing the opinion that the railroads had done remarkable job under war conditions.

Does this survey complete the picture? Unfortunately, no. In testimony before certain Congressional committees, in speeches throughout the West and South, in parts of the press, there have been those who transmute coordination with shippers into collusion; cooperation of the railroads among themselves has become coercion; and teamwork with governmental departments is neither creditable nor praiseworthy.

The issue between the railroads and these critics is a fundamental one. The railroads are now the most completely regulated industry on earth. If, and to the extent that, there may be ambiguity in the statutes [i.e., the anti-trust act and the interstate commerce act], let Congress speak and clear up

the muddle.

I have no criticism to offer of what has been done and what is now being done by the various public relations departments of the individual railroads, the Association of American Railroads and of the Western Association, but I shall never be satisfied until I see the public relations work of the railroads brought home to the very grass roots of the people. If they are to succeed and continue to exist as private enterprises they must proceed to tell their story to the people-tell it simply, clearly and honestly.

F., to the Minneapolis Traffic Club

Rate Increases Are Suspended Again

I.C.C. extends for a year its ban on restoration of Ex Parte 148 freight charges, but leaves passenger-fare boost in effect

WASHINGTON, D. C.

Ex PARTE 148 freight rate increases have been further suspended by the Interstate Commerce Commission for an additional period of one year, from January 1, 1945, until December 31, 1945, but the commission has refused to revoke the proceeding's 10 per cent passenger fare increase, as was also proposed by the Office of Price Administration, and favored by the cooperating committee of state commissioners which sat on the case. The freight-rate increases originally authorized in the proceeding amounted to about 4.7 per cent; they became effective March 18, 1942, but have been suspended since May 15, 1943.

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Except for the original suspension, which ran for the 7½-months period from the latter date until the end of 1943, previous suspensions have been for six-months periods, the railroads consenting to the two which continued the ban through the current year. The carriers had, however, asked for restoration of the increases on January 1, 1945, at the October-November hearings out of which the present report has

O. P. A. spearheaded the opposition to the restoration, although there were other opponents on hand, too, including the National Association of Railroad and Utilities Commissioners which had filed a petition asking the commission to require the railroads to show cause why the increases should not be permanently canceled.

Advantages of Suspension

As noted above, the present decision carries on the "suspension" tradition which has been established in the proceeding. On that the majority report had this to say: "For us to cancel, instead of further suspending, the freight rate increase would have the practical effect of requiring that before any increase could be made effective, a new proceeding must be instituted with further hearing therein to enable a decision to be made as to what increases should be allowed, and upon what traffic they should be placed." Later on the commission says that its duties under the national transportation policy and other provisions of the Interstate Commerce Act are "continuous," adding that in view of uncertainties as to factors which may affect traffic and revenues during the period of further suspension, any party to the proceeding "may petition us if circumstances and conditions affecting such traffic and revenues substantially change."

Yet as Commissioner Miller complained, in his dissenting-in-part expression, the majority made no provision for restoration of the increases without a further hearing. That was the only point made by Mr. Miller, who agreed to the further suspension but thought the record "clearly shows that the car-riers should secure the benefit of these increases not later than the end of the war in Europe." Since another separate expression, concurring-in-part, came from Commissioner Alldredge and two commissioners did not participate, the majority report was adopted by a 7 to 2 vote, the majority being comprised of Chairman Patterson and Commissioners Aitchison, Porter, Lee, Mahaffie, Splawn, and Rogers. The nonparticipating members were Commissioners Johnson and Barnard.

Alldredge Favored Restoration

Commissioner Alldredge expressed his view that it would be a "prudent as well as a sound policy" to restore the increases, "provided the total earnings of the carriers above a reasonable figure are impounded for the improvement of their properties and the reduction of their debts." Previously, Mr. Alldredge recalled how he voted for the original increase and opposed the initial suspension in 1943. "Past history," he said, 'should have held some lessons for the future. Most of the general increases in freight rates and charges that have been made since World War I have come in periods of relatively low prices and reduced business activity. The avoidance of such occurrence in the future seemed a desirable objective."

After getting under way with a brief outlines of the proceeding's history the majority report proceeded to review the evidence, taking up in turn the financial situation of the railroads and the positions of the parties. In its statement of the railroad position is found the assertion that carrier witnesses "admitted that if the 1944 volume of traffic should continue, there would be no immediate necessity for an increase in freight rates."

The evidence relating to estimated federal taxes was discussed in some detail, the discussion leading to a conclusion that conditions surrounding such computations are such that "the attempt 40 estimate the amount of future excess profits taxes is hazardous, if not altogether impracticable."

The commission, as it noted later on, found it unnecessary in the present case "definitely to decide to what extent fed-

eral income and excess profits taxes should be taken into account in determining whether the net earnings of the railroads are adequate." This conclusion was a follow-through from a reference to how the carriers had urged consideration of net railway operating income and net income figures after federal taxes, whereas the O. P. A. preferred the before-federal-taxes versions.

Deferred Maintenance Uncertain

On the question of deferred maintenance, the commission cited the testimony of a railroad witness who put the total at \$400,000,000. The figure was rejected because "no satisfactory method for the measurement of deferred maintenance has yet been devised."

The method used by the railroads can not be accepted as a reliable method, based, as it is, upon amounts charged in the year 1943 by only 13 railroads. We are not able to determine upon this record what the amount may be at the end of the year 1944."

Post-War Expenditures

The report conceded that the railroads will need money for modernization in the post-war period, but it rejected the carriers' contention that they will need as much for roadway and structures improvements as for equipment.

Carrier witnesses put at \$35,000,000 the annual requirements for equipment in the first five postwar years, and stated that experience over a 22-year period indicated that a like amount would be required for improvements to roadway and structures. This, said the commission, "does not necessarily follow," since most of the testimony of the railroad executives "relates to the modernization of equipment rather than roadway." And funds representing the depreciation and amortization charges on existing equipment (\$378 millions in 1944) "can be used for the purchase of new equipment."

In predicting their income for 1945, the railroads estimated federal income and excess profits taxes at 66 2/3 per cent of the net income before federal taxes, arriving at a \$350,000,000 figure for 1945 net income after federal taxes. This was based on an estimated gross of \$7,620,000,000.

The commission went on to make some adjustments upon the assumption that the federal income and excess profits taxes would be 65 per cent of the net income before such taxes. This produced an estimated \$451,000,000 for 1945 net income after federal taxes.

Couldn't Guess 1945 Net

"If, ih this adjustment," the commission added, "federal income taxes were computed at a rate of 61 per cent of net income before federal income taxes, the net income after federal income taxes would be about \$503 millions." But here the commission stopped, saying that "because of the many uncertain facit would not attempt to predict the 1945 net income. It added that "even if the carriers' estimate of a decline of 19 per cent in revenue is accepted (and probably this estimate is excessive), their estimates of expenses are too great, even after readjusting them for amortization on emergency equipment."

Furthermore, it seemed obvious to the commission that the war in Europe will not end as early as assumed in the carrier testimony. In that connection the report had already noted how "the country is at this moment adjured by those highest in authority that it is imperative that there be no slackeningindeed a marked intensification-of the production of supplies and munitions for overseas operations."

Meanwhile, the report had disposed of the request for revocation of the passenger-fare increase which has remained in effect since February, 1942. Here the commission noted that the passenger service, which failed to pay its proper share of expenses for the entire period from 1930 to 1941, still has an operating ratio "decidedly less favorable" than that of freight service. Thus it found nothing in the situation to indicate that the increase has resulted in unreasonable fares. Nor does anything in the record show that it has had "any inflationary effect." The state commissioners' position favoring revocation of the fare increase as well as the further suspension of the freight charges is set forth in recommendations drafted by them and included as a footnote in the commission's report.

War Rates Included

Dealing with a War Department's request, the commission this time excepted from its suspension order "only rates which had been reduced below reasonable levels as a real concession to the government, but not rates which, even though reduced at the request of the government, were not below such levels." As noted in the Railway Age of November 11, page 736, the War Department took no position either for or against a further suspension. It pointed out, however, that the previous suspension orders have permitted continuance of the increases on special "emergency" rates published at the request of government agencies; and it asked (in the event of cancelation or further suspension) for the application of the order to all published tariff rates.

Gormley Retiring from A.A.R.

Will leave on December 31 after long career with Association and its predecessors; he educated the Army in the proper use of railroad equipment, paving the way for uncongested wartime operations



M. J. Gormley

MICHAEL J. GORMLEY, executive assistant of the Association of American Railroads, will retire at his own request on December 31. He has been in his present position since the A. A. R. was organized in 1934, having previously been associated for many years with its predecessor, the American Railway Association, of which he was president during 1933-34.

Famed Gormley Lecture

During the period between the two wars, Mr. Gormley devoted much time and effort to the education of the army in the proper use of railroad equipment; and he has been credited with having done more than any other individual to prevent government operation of the railroads during the present conflict. He became chairman of the Car Service Division in 1921, and in the same year he delivered a lecture at the Army War College in Washington. In it he pointed out how the use of freight cars for storage was mainly responsible for the congestion which characterized railroad transportation conditions of World War I, driving home his "Don't load a car until you know it can be unloaded" message.

The Gormley lecture thereafter became an annual feature of the course at the War College, and he continued driving home that message, year after year-with the beneficial results evident in the present war's transportation situation; for many of those who heard him are now top Army officers. Also, Mr. Gormley worked with the Army and Navy Munitions Board during the 1939-40 period, and otherwise served as the railroad industry's liaison with the armed services.

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Mr. Gormley had got his practical experience with these matters during the World War I period when he served in turn as general agent of the A. R. A. at Chicago and assistant regional director of the United States Railroad Administration. Later on, as chairman of the Car Service Division he was active with Donald C. Conn in promoting the organization of the Regional Shippers Advisory which have spearheaded the shipper cooperation that has contributed so much to the wartime performance of the car-

The story of Mr. Gormley's role as one of the pioneers in the development of inter-railroad cooperation and shipper collaboration is told in the article entitled "Here's a 'Managerial Revolution'" which appeared in the Railway Age of June 10, page 1104, and June 17, page 1170.

Mr. Gormley was born October 9, 1876, at Watertown, Wis., and was educated in the grade and high schools there. He entered railroad service in 1893 as a clerk and laborer on the Chicago & North Western. Remaining with that road, he subsequently held various positions, including chief clerk, trainmaster, assistant to vice-president, and assistant to president. He resigned from the latter in 1917 to become the A. R. A.'s general agent at Chicago, and in the following year he was appointed operating assistant to the regional director, U. S. R. R., later becoming assistant regional director.

Mr. Gormley left railroad service in 1920 to join the staff of the American Petroleum Institute as director of transportation; but he was back in the business the following year, when he became chairman of the Car Service Division. In 1929 he became executive vice-president of the A. R. A., retaining also the chairmanship of the division. He served in those capacities until his election to the presidency of the A. R. A. in 1933. A year later when the A. R. A. was absorbed by the newly-organized A. A. R., Mr. Gormley became executive assistant of the latter-the position from which he is now retiring.

Notes on Fusion-Welded Boilers

W. P. B. investigates steel saved in the construction and repair of welded alloy-steel locomotive boilers

By D. R. Carse

Climax Molybdenum Company

In a paper presented before the Railroad Division of the American Society of Mechanical Engineers, S. L. Hoyt and H. W. Gillett state "in recent years there has been some interest in the use of alloy steel for boiler plate, presumably to secure higher pressure without adding to the plate thickness, or otherwise to take advantage of reduced weight in the shell. This would appear to be a perfectly logical step to take along with the use of welding for boiler fabrication. It is the obvious answer to the problems of embrittlement around rivet holes and of leaks at high pressures. The economy of using high steam pressures is well known, and any serious attempt to take advantage of them in locomotive construction should include consideration of high-strength steel as well as welding."

This subject was thoroughly investigated during 1943 by the Conservation Division of the War Production Board, from the viewpoint of saving steel plate tonnage. This investigation resulted in the following letter addressed by Howard Coonley, director, Conservation Division of the War Production Board, to all railroads on

September 15, 1943:

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Letter to All Railroads

"We are interested in the possible conservation of steel through fusion welding of new railroad locomotive boilers. However, under I. C. C. procedure we understand it is necessary for the railroads themselves to make application for the use of any particular type of construction other than presently approved construction. We have discussed this matter with Commissioners Eastman and Patterson of the Interstate Commerce Commission, and with John M. Hall, director of the Bureau of Locomotive Inspection, and are attempting to facilitate the granting of the I. C. C. approval of boilers constructed by fusion welding in a manner conforming with A. S. M. E. Boiler Construction Code, Section III.

"If you are contemplating ordering new locomotives or new locomotive boilers and your suppliers are in a position to furnish you fusion welded boilers which will conform with the above mentioned specifications, and such boilers will be satisfactory to you, we wish that, as a conservation measure, you would file with the I. C. C. application for permission to use boilers constructed in

this way.

"As there are limited facilities for the construction of such boilers, we suggest that you first take this matter up with our Transportation Equipment Division in order to obtain W. P. B. approval for such construction, so that we may be satisfied that there will be no unreasonable delay in the construction of boilers generally.

"We should appreciate your advising us promptly of the filing of any such applications, attention of C. H.

¹ For an abstract of this paper see Railroad Structural Materials, by S. L. Hoyt and H. W. Gillett, Battelle Memorial Institute, Railway Age, July 8, 1944.

Creasser of the Transportation Equipment Division, 431 Sixth street, Northwest."

Unfortunately at that time the locomotive builders were not in position to accept orders for welded boilers, as the necessary stress-relieving treatment and radiographic examination would have interfered with their hard-pressed schedules for locomotive delivery. This situation is changing at present and at the moment 100 export locomotives with fusion-welded and stress-relieved longitudinal seams have been approved. Several of these already have been produced.

Steps in Development of Boiler Welding

In view of this situation, it may be of interest to review the available data as originally collected for the inter-

ested agencies of the War Production Board.

For more than 26 years pressure vessels in this country have successfully been constructed with fusion welded seams. In April, 1919, the Boiler Code Committee of the A. S. M. E. appointed a sub-committee to draft rules for the construction of unfired pressure vessels, and in 1925 a code for unfired pressure vessels which included rules for the fusion process of welding was adopted. In 1931 the Boiler Code Committee adopted rules for the welding of power boilers, but no endeavor was made at that time to include such rules in the Locomotive Boiler Code. Such action, however, was taken in the Fall of 1942 and resulted in the adoption of rules for the fusion welding of locomotive boilers as an addition to Section III of the A. S. M. E. Boiler Construction Code.

The code for the fusion welding of power boilers has become law in every state of the Union having boiler safety regulations and was accepted as the model for the fusion welding codes subsequently drawn by the Merchant Marine (then known as the Bureau of Steamboat Inspection of the Department of the Interior), the Ameri-

can Bureau of Shipping, and British Lloyds.

The Safety Record

There can no longer be any question as to the safety of welded boiler construction. Fusion welded steam boilers in stationary service have been in use since 1931, and several hundred boilers carrying pressures in the neighborhood of 1,500 lb. per sq. in. have been in successful service for eight years. In the oil refinery industry the welding of pressure vessels has been standard practice since 1930, and the pressures and temperatures involved far exceed any encountered in railroad practice, being frequently in the neighborhood of 1,000 lb. per sq. in. and 850 deg. F. In August, 1930, the U. S. Navy also issued specifications for welded boiler drums and subsequently began their purchase for service where it is stated that vibration and stress are of a similar order of magnitude to those experienced in locomotive operation.

The Merchant Marine and British Lloyds have likewise adopted the fusion-welding of boiler drums, and it may be noted that in all of the above fields there is no record of any failure of a fusion-welded boiler drum built in accordance with the above mentioned codes or regula-

The construction of the railroad locomotive boiler drums, where pressures rarely exceed 300 lb, per sq, in., has alone remained unchanged and continued to make use of the former riveted method with its waste of material in laps, welt plates and rivet heads, its invitation to embrittlement through leaks in the riveted spaces, and its waste of labor in calking and patching. The first welded locomotive boiler authorized as a test by the Interstate Commerce Commission has now completed seven years of successful service on the Delaware & Hudson, with no cracks or trouble of any nature experienced to date.

The Saving in Steel and Labor

The data in the table are as reported by a Class I railroad, and are based on modern locomotives operating approximately 100,000 miles per year in high-speed passenger service at a steam pressure of 300 lb. per sq. in.

Weight-Saving Possibilities of Welded Alloy-Steel Construction

Base weight, plain carbon steel, riveted construction, lb Base weight, plain carbon steel, fusion welded construct Base weight, alloy steel, fusion welded construction, lb.	tion, lb 105.576.

In this case the railroad reports a possible saving of 16,350 lb. if fusion-welded alloy-steel construction instead of riveted carbon-steel is used on these particular locomotives. In order to arrive at an estimate of what this saving might mean, refer to the paper² presented on April 11, 1944, by K. F. Nystrom, before the New England Railroad Club. Mr. Nystrom states in part ". . . from studies we have made, it appears that, based on a cost of one mill per ton mile for carrying dead weight in freight and passenger trains, and absorbing the extra cost over a period of 16.6 years, we can afford to pay as much as . . . \$1.00 per pound saved in a passenger car or locomotive. It is felt that these figures are conservative, particularly for passenger cars and passenger locomotives, as high speed increases cost per ton mile.

Maintenance Cost Lower

This, of course, refers only to the initial cost of fusionwelded alloy construction, and ignores the much larger saving in reduced maintenance throughout the life of the locomotive. It also ignores the increased efficiency obtainable through using higher steam pressures than are practical with riveted construction. The class of locomotives on which figures are quoted above were built of plain carbon-steel, and riveted construction. Within the first five years of operation, all seams had to be cut out and patched due to embrittlement. There is now substantial evidence that complete renewal of these boiler shells may be required every seven years. The five year labor and material costs for the patching have averaged \$8,000 per locomotive with 4,800 lb. of new steel plates required for this repair per locomotive. All of this work could be eliminated if the boilers were fusion welded, since in that case the conditions under which embrittlement cracking occurs would be totally absent.

Based on these figures and assuming that all plates

² See After-War Problems—Locomotives and Cars, by K. F. Nystrom, mechanical assistant to chief operating officer, Chicago, Milwaukee, St. Paul & Pacific, Railway Age, April 15, 1944.

will have to be renewed at the end of seven years, the savings per locomotive per year, if fusion welded alloy construction is used, are as follows:

6,885 96,111
$102,996 \div 7 = 14,714$ $4,800 \div 5 = 960$
15,674
\$8,000÷5=\$1,600

This brings up consideration of the possible high-tensile steels available for such construction. The A. S. T. M. lists these as: A-212—Carbon-silicon steel (generally called "silico-manganese"); A-202-Chrome-manganesesilicon steel; A-203-Low-carbon nickel-steel; A-204-Molybdenum-steel; A-225-Manganese-vanadium steel.

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It is probably true that any one of the above steels, when properly fabricated, will lend itself well to the production of serviceable locomotive boilers. However, there are several comparative factors which must be taken into consideration in choosing the best of these steels, while not overlooking the considerations of first and finished costs.

Among these are: cost (the extras for these steels can be obtained from any producer); ease of fabrication (the steels all fabricate readily) and weldability

All of the above steels are commercially weldable and have been used for some welded structures in the past. However, because of its extended use through civilian and governmental standardization for all types of hightemperature and high-pressure applications in the oil industry and for the production of steam in all types of boilers, molybdenum steel has been put through its paces to a greater extent in this field than any other steel. As far as its straight welding properties are concerned, and with no consideration given to its high temperature properties, it is important to note that one of the principal Diesel-electric locomotive builders recently expressed a preference for specification A-204 for use in welded frames on the ground that when frames of this material had broken because of a wreck or a derailment, the break had never been in or near the weld.

Plan Single Gage for Australian Railways

By the Hon. E. J. Ward*

OR many years the question of standardizing Australia's railway gages has been discussed by successive governments. Many reports and estimates have been prepared, but there the matter has ended. However, the threat of Japanese aggression rudely shocked the complacency of Australians and drew attention to the lack of adequate land transport. We soon found that the lack of a uniform gage restricted the mobility of the available defense forces, and many expedients had to be adopted.

Today, Australia is planning for the post-war period,

The Author

The youngest cabinet member in the Australian government, Mr. Ward has a reputation for progressiveness, frequently showing annoyance when older colleagues do not move as rapidly as he feels is warranted by circumstances. As the first Minister for Labor in the government of Prime Minister Curtin, he was given the task of mobilizing Australian workers for war. At present he holds two portfolios-transport and the administration of external territories.

and the people hope that standardization of railway gages will have a high priority. Not only for purposes of defense but also for reasons of national development, it is fundamental that Australia's 27,000 odd miles of mainland railroads, which are practically all governmentowned, shall be of one gage. Unfortunately, in the early days prior to Federation the several Australian states went their own way.

At present, the route mileage of the different government railway gages in the several mainland states is approximately as follows:

5 ft. 3 in.-6,132 miles in Victoria and South Australia.

4 ft. 81/2 in .- 7,322 miles; includes the Commonwealth transcontinental line linking South Australia and West Australia (owned by federal government), and lines in New South Wales.

3 ft. 6 in.-13,015 miles; includes Commonwealth lines and state-owned lines in Queensland, South Australia and West Australia.

Others-552 miles.

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Investigation Is Started

At my suggestion the Commonwealth Cabinet authorized Sir Harold Clapp, director-general of land transport since the war and an eminent Australian railway authority, to investigate the question of standardizing our railway gages on the 4-ft. 8½-in. basis. Sir Harold Clapp will not only submit a report but also a detailed plan, so that the government of the Commonwealth can bring to fruition this long-delayed project, after discussion and agreement with the state governments. Along with the standardization of gages, the whole question involving standards of rolling stock and equipment is being studied with a view to securing the maximum advantages.

This investigation in all its aspects is proceeding rapidly. I have just received a preliminary report indicating that no fewer than 12,000,000 crossties and something like half a million tons of steel rails and fastenings will be required for the scheme that will be recommended. In addition, there will be large quantities of steel required for the construction of locomotives and rolling stock. It is thought that the Australian steel mills will be able to suppy the requirements for steel and steel rails. Apart from steel, millions of feet of sawn timber, as well as large quantities of bricks, cement, etc., will be needed.

It is evident that the man-power requirements, in addition to existing railway staffs, will be considerable. In fact, the railways will need to employ, over a period of years, an aggregate of about 100,000 additional men. In addition to men employed on railway work, at least 30,000 men, spread over a period of years, will be needed to produce the necessary materials in ties, rails and fastenings. Other steel and timber requirements will also absorb considerable numbers of men, but at this stage the numbers cannot be estimated.

The major aspects of the standardization of Australia's railway gages will be the construction of new rolling stock and the alteration of existing rolling stock suitable for conversion, the alteration of the permanent way and structures, the building of extensive classification and transfer yards and locomotive terminals, and the construction of new lines for defense and development purposes.

Advantages of Standardization

Standardization offers many advantages that are quite apart from defense, for which it is essential. For instance, it will enable greater use to be made of existing rolling stock, will facilitate and expedite the movement of both pasengers and freight, and generally will tend to break down state prejudice. The standardization of equipment and rolling stock should eventually result in great economy in production and maintenance. Both Great Britain and the United States found in earlier years that the diversity of railway gages was retarding national development, as a result of which these countries both standardized on the 4-ft. 81/2-in. gage over half a century ago.

The question of standardization of railway gages in Australia was raised about the same time, but no progress

was made.

To me it is an amazing thing how successive governments in Australia have failed to take action. Arguments advanced in earlier years appear to have hinged on the cost involved, an insignificant amount compared with the prodigious and ever-mounting expenditure incurred by the country in the prosecution of the war. In the depression years of 1931-32, this project would have provided work for thousands of men, but nothing was done by those who were then guarding the destinies of Australia. As a consequence our transport system proved to be probably the weakest point in our defensive equipment when Japanese invasion threatened. Despite the great demand which will be made on man-power and materials in the post-war era in Australia, I am convinced that the standardization of railway gages can no longer be delayed. The work, including the construction of certain strategic and developmental railways, will probably take seven years.

Other Post-War Needs

For the purpose of both defense and development, Australian railway construction projects for the post-war period must, of necessity, include provision for railways to serve adequately the vast, sparsely-populated areas in the far north. Also, because of the wear and tear incurred by reason of the heavy war traffic, a huge rehabilitation program involving both permanent way and rolling stock will have to be undertaken by the Australian railway systems in the post-war period. This is quite apart from the standardization of gages and will appreciably increase the demand on men and materials.

It is estimated that Sir Harold Clapp's report and plan for standardization will be finalized by March next year, and submitted to the Commonwealth government for discussion with the states concerned. In addition to the conversion of gages, the scheme will include the construction of consequential, strategical and developmental railways, and will embody a section dealing with the modernization of rail transport to enable it to be coordinated with the highway and air-transport systems, and thus provide the most efficient facilities for the car-

riage of passengers and goods.

Federal Aid Bilks Road Users of 17 States

THE economy and justice of federal aid to highway construction was called into question by Congressman W. J. Miller (R., Conn.) in an extension of remarks published in the November 27 Congressional Di-

In discussing pending federal aid highway legislation which would appropriate \$525 millions annually, the Connecticut Congressman pointed out that the measure would be based on levies from all highway users, but with proceeds apportioned inequitably—that is, not distributed among the states in the same ratio as their contribution to federal receipts from highway users.

In 1942 Mr. Miller explained, the federal government collected \$642 millions in various levies upon users of the highways. If the \$525 millions to be spent annually on highways were distributed in proportion among the states as the citizens of each have contributed to the federal taxes on road use, each state's share would be the total shown in Column B of the accompanying table. Column A shows the actual federal aid each state will get under the proposed legislation. Column C shows the amounts by which some states will have their highways subsidized at the expense of taxpayers in other states. Column D shows the amounts by which some states will get less from federal aid than their pro rata proportion of federal taxes from highway users.

"Road-user groups everywhere are calling for no diver-

Federal Aid Costs Some States More Than It Helps Them

State	Total appor- tioned for state, county, and local roads	Federal motor vehicle im- posts to raise the total fund	Subsidies from other States	Diversions to other States
	A	В	C	D
		(Thous	ands)	
Ala	\$9,860	\$6,480	\$3,380	
Ariz.	7,200	2,310	4,890	
Ark	7,890	4,240	3,650	
Calif	26,000	43,960		\$17,960
Colo.	9,570	5,070	4,500	******
Conn	4,490	8,780		4,290
Del	1,550	1,330	220	*****
Fla	7,270	8,830 .		1,560
Ga	11,780	8,810	2,970	
Idaho	7,550	2,290	5,260	
III	23,450	32,600		9,150
Ind	12,200	15,820		3,620
Iowa	11,310	12,120		810
Kans.	10,850	8,800	2,050	
Ky	8,980	7,410	1,570	
La	7,500	6,660	840	
Me	3.930	3,450	480	
Md	4,840	7,280		2,440
Mass	10,390 •	15,860		5,470
Mich	17,090	26,020		8,930
Minn.	12,870	12,560	310	*****
Miss	8,120	4,740	3,380	******
Mo	14,640	15,560		920
Mont	10,010	2,670	7.340	
Neb	8,520	5,840	2,680	
Nev	5,350	810	4,540	******
N. H	2,300	2,080	220	
N. J	9,600	18,660		9,060
N. M	7,480	2,090	5,390	
N. Y	34,180	41,940		7,760
N. C	11,520	11,050	460	
N. D	6,020	2,350	3,670	
Ohio	20,300	32,280		11,980
Okla	10,270	8,780	1,490	*****
Oreg	10,550	5,990	4,560	*****
Pa	25,410	36,300		10,890
R. I	2,350	3,140		790
S. C	6,350	5,230	1.120	
S. D	6,570	2,800	3,770	
Tenn.	10,160	7,660	2,500	
Tex	29,080	28,130	950	
Utah	5,550	2,390 .	3,160	*****
Vt	1,950	1,540	410	*****
Va	9,040	9,590		550
Wash	9,230	8,900	330	
W. Va	5,550	5,030	470	
Wis	12,020	13,490		1,470
Wyo	5,950	1,520	4,430	
Territories and D. C.	7,910	3,750	4,160	
Administration	12,500		12,500	
Total	525 000	525 000	97.650	07 650

sion of motor-vehicle taxes," said Mr. Miller. "They have been instrumental in enacting anti-diversion amendments to the constitution of many of the states. Yet, the Roads Committee of this House recommends the passage of legislation which diverts \$97,500,000 from the motor vehicle owners of 17 states to subsidize the others."

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Blasted Bridges

(Continued from page 920)

and were set up on the foundation of the destroyed abutment to carry the load of steel during erection while the concrete was setting. Because of lack of suitable materials, it was necessary to support the span temporarily at two intermediate points in the river during construction. It was not found practicable to use ordinary conventional piling for this purpose; therefore, an arrangement was worked out for the use of special adjustable camel's foot bearings that were designed and stocked by the railroad and dock troops of the British army, primarily to be used as bearings for temporary dock repairs. Special adapters were made to permit the use of these camel's foot bearing shoes with the standard British military railway steel trestling.

Barges were borrowed from the Corps of Engineers, special timber frames were erected on the barges, and the lower section of the trestling was erected and suspended between the barges at the shore. At this point, the lower section of trestling was floated into place; lowered to position on the river bottom; adjusted to proper plumb through the screw action permitted by the shaft extending through the trestling; and the balance of the trestling was erected up to the bridge seats.

Figs. 5 and 6 indicate the various stages of this work. At the same time the concrete of the south abutment was poured around the steel columns temporarily erected, and a new concrete abutment was poured on the north shore. Because of the speed of erection, it was necessary to land the steel span on the north abutment only four days after it had been completed.

Work Divided Among Three Groups

The work on this bridge was divided into three general groups, all of which were carried out simultaneously. The span erection group commenced immediately on erection of the 80-ft. portion of the truss on the south shore to act as counter-balance for cantilever erection of the first span to the first temporary intermediate pier. as indicated in Fig. 7. While this was going on, the second, or abutment construction group, leveled off the old blown-out abutments, placed the specially designed steel columns, and had the footings ready for the steel spans when they reached them. At the same time they placed forms and poured the concrete around the columns so that, by the time cantilever erection of the span proper had passed the south abutment, the pouring of concrete was completed, as indicated in Fig. 8

The third group commenced immediately the fabrication and placing of the central temporary steel trestling as described previously. The work was so well timed and co-ordinated that in both instances the lower chord of the span was just reaching out for support on the temporary trestling when the temporary bridge seat was

being placed by the crews.

Fig. 9 shows the bridge during erection. Here, it will be noted that the erection proper has passed the second temporary trestling, and cannibalization of portions of the original span on the south bank is taking place in order to complete the span to the north shore. Fig. 10 shows the completed span after the temporary trestling was removed.

Permission was given by the tactical commander to commence construction of this bridge on the evening of May 15. On the morning of May 16 work was started and, 14 days later, on May 29, it was ready for the passage of trains. Attention is invited to the fact that, with the 80 ft. on the bank, it was necessary to erect a total of 320 ft. of truss. The 240 ft. finally left in place was erected in nine days. The work was done by "A" companies of the four American Railway Operating Battalions.

(Part 2 of this article, which will describe the construction of bridges across the Volturno river at Cancello and the Savone river north of Sparanise, will appear in an early issue.)

Communications . . .

Blind Leading the Blind

TO THE EDITOR:

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BUFFALO, N. Y.

I cannot believe that officials of railroads have any comprehension of how few employees who direct the public have any knowledge either of travel conditions or of modern train travel. I am thinking of the girl who served as information attendant in a major terminal and transfer point directing hundreds and perhaps thousands of travelers daily; for six months she had never been inside a coach, and had merely walked through Pullman sleepers because a specially competent fellow-employee took some of the girls through some cars in the yards one evening; she worked for a year before she ever actually rode on any kind of a train! I'm thinking too of a real old-timer, called back into rail-road service by the wartime boom, who told his passengers that tourist sleepers were different from standard sleepers in that they had leather seats! This, too, in a major station.

Many supervisors dismiss this sort of thing with the brusque comment that such practical knowledge isn't essential. Of course it isn't; but it helps. Let an employee sit for a few hours at a junction because of a carelessly interpreted timetable, and he'll think before he dismisses a passenger with a half thought-out answer. These supervisors suggest that an employee can learn on his own time how his railroad is run. Yes; but other businesses don't expect ordinary employees to learn on their own time, and the railroad seniority system discourages such initiative.

As a matter of fact, the very employees whose job it is to meet and guide the public are discriminated against in their ability to travel, strange as it may seem. An operating employee often gets an annual pass in connection with his work; a reservation clerk or a ticket seller rarely. In fact, in some cases, such an employee

must work longer to get an annual pass!

In these overcrowded times, it may be asked what right an employee has taking space on trains needed by revenue passengers. say that there are few places in the eastern or midwestern United States where there isn't some representative train which has ample vacant space some day of the week. Such contact employees need not travel often, or in large groups. Alone, on relief days, an employee could travel part way on a streamliner, part way on a local, and return in an upper berth, almost everywhere except in the south and far west; he might be paid for this, or might merely be encouraged to do so on his own time-just make such arrangements easy for him. Let him talk his trip over, afterwards, with a passenger representative, who could tell him how typical his journey was. Then, bring him (or her) down to some overcrowded train, to see for himself how crowded conditions at their worst are.

A little thing? I've stood beside employees and heard their explanations to inquiring travelers, sometimes accurate, far too often based on ignorance or obsolete observations. I've stood on both

sides of a ticket window, and think that I can understand both the point of view of the traveler and of the contact employee.

In railroads, I've seen ambitious employees discouraged in their effort to help the newcomers by complete official indifference. Outside railroads, I've seen weeks spent in orienting employees who will never have a chance to influence the buying public. Is there really any essential difference between selling a reservation and a ticket, and selling a more tangible product, both in a competitive market?

WILLIAM C. KESSEL

What Qualifications for Public Relations Work?

In view of the importance of public relations work to the railroads and your oft demonstrated interest in that line of activity, I can scarcely refrain from commenting on the letter by "Public Relations Officer" carried under the title "What Qualifications For Public Relations Work," in your December 2 issue.

One of the greatest handicaps which public relations men are laboring under is the widespread and deep-seated impression that public relations work consists almost entirely of press agentry. The letter of "Public Relations Officer" certainly makes his full contribution, knowingly or not, towards the perpetuation of that erroneous idea. The naive implication that railroading is so simple that a newspaper man can pick up all of its essentials in short order will certainly not be accepted by the experienced railroad

Of course, this is a debatable point and depends largely upon the individual viewpoint, but I have discussed this very matter with many railroad officers, including public relations officers, and the preponderance of their opinion is that a railroad man who possesses ability of expression can acquire the essentials of newspaper writing more quickly than the newspaper man can possibly acquaint himself with the ramifications of railroading and railroad organization. However, this phase of the matter is somewhat beside the point. In my judgment the most grievous error reflected in the above-mentioned letter is the apparent view that newspaper publicity and public relations are synonymous...

While constructive publicity and advertising have a very proper place in any public relations program, publicity is only a part of the work involved. Public relations, like charity, begins at home, and quite often it consists more of an inside job than it does in telling the world what we want it to know. After all, we will be judged more by what we do and the manner of doing it than by

what we say.

One might as well contend that to be a successful railroad president he must first be a good mechanical engineer or a certified public accountant or a traffic expert as to say that a public relations officer must be a newspaper man in order to succeed in his work. The railroad president uses the mechanical engineering and other abilities in his organization, and the public relations officer in his program likewise employs in appropriate manner the talents of someone in his department who is capable of writing news releases acceptable to the newspapers. Public relations embraces so much more than publicity that the public relations officer should be a broad-gaged executive of exceptional ability and not one whose experience is confined to one angle of the work.

If restrictions as to personnel preclude the employment of a special publicity man in the organization, the public relations officer himself can readily acquire the knowledge and skill necessary to the preparation of the news releases. After all, what the newspapers want is news and I have never known of anyone who experienced any particular trouble in getting news releases published provided they possessed reader interest and were presented in a

frank and attractive manner.

The popular notion that a public relations man is a "high-powered press agent" with a bag of tricks or some special technique for getting articles published in the newspapers, does not accord with the modern concept of public relations and the quicker we can rid ourselves of it the more progress we can make in effectuating public relations in the real sense of the term.

ANOTHER PUBLIC RELATIONS OFFICER

Railroads-in-War News

Name Rogers I. C. C. Chairman for 1945

A commissioner since 1937, his O. D. T. work precluded earlier election

Through a notice issued by Secretary W. P. Bartel, the Interstate Commerce Commission on December 12 announced that Commissioner John L. Rogers has been elected as its chairman for the calendar year 1945, succeeding William J. Patterson, whose stated term as chairman expires with the present year, though he of course continues his duties as commissioner. Since the chairmanship ordinarily goes in rotation to the different commissioners in order of seniority, Commissioner Rogers was in line for the position in previous years, but he was unable to undertake the added duties of the office while he was devoting a large part of his time to the Office of Defense Trans-

Mr. Rogers was taken into the O. D. T. organization by Director Eastman when that agency was in its formative stage, serving at first as director of the Division of Motor Transport, and later assuming added responsibilities as assistant director, 'although continuing to serve as a member of the commission. On March 20, shortly after Mr. Eastman's death, Mr. Rogers resigned his O. D. T. position, however, in order to give his undivided energies to his commission duties.

Seniority Rule Applied .- The commission's practice of rotating the chairmanship for a one-year term among its members, in order of seniority, was interrupted when Commissioner Eastman was named chairman for a three-year period on a fiscal year basis, beginning July 1, 1939, but was resumed after his selection as director of the O. D. T. made it necessary for him to relinquish the chairmanship, Commissioner Aitchison having been named acting chairman for the unexpired part of the three-year term and chairman for the remainder of the calendar year 1942. Mr. Rogers was in line for the 1943 chairmanship on a seniority basis, but was passed over in view of his O. D. T. duties, and Commissioner Alldredge was selected instead. In a like manner, the 1944 term went to Commissioner

Mr. Rogers was born at Knoxville, Tenn., June 27, 1889. After attending the public schools there, he entered railway service as a laborer in the car repair shops of the Southern, with which road he later served an apprenticeship in the mechanical department, thus becoming a boilermaker and later a layer-out.

Subsequently he attended the school of

engineering of the University of Termessee, from which he received the B. S. degree in mechanical engineering.

A "Career Man."—After a period in the employ of the Isthmian Canal Commission in Panama, Mr. Rogers entered the service of the Interstate Commerce Commission in 1917, his first position being junior mechanical engineer in the Bureau of Locomotive Inspection. He was promoted first to mechanical engineer and then, in 1925, to examiner, and meanwhile, having taken a course in law at National University, Washington, D. C., he won an LL.D. degree and was admitted to the bar.

In 1933 Mr. Rogers became associated with Joseph B. Eastman as his executive assistant in the office of Federal Co-ordinator of Transportation. Upon the enactment of the Motor Carrier Act of 1935 he was named by the commission as director of the Bureau of Motor Carriers created by that statute, and he held that position until, in 1937, he was named by President Roosevelt as a member of the I. C. C. in the place of Hugh M. Tate, for the term expiring in 1943. He was reappointed last year for the term expiring in 1950.

2nd M. R. S. Returns 210-Mile Rail Network to French

A 210-mile railway network in the Normandy region, together with captured German equipment and a complete communications system, was turned over to the French by the U.S. Army 2nd Military Railway Service, in Cherbourg, November 30. Communications Zone headquarters, Eastern Theater of Operations, has announced that under the arrangement complete control over operation and maintenance of the lines from Lison to Vire, St. Lo to Coutances, Folligny to Argentan, Folligny to Coutances, and LaHaye du Puits to Sottevast, has been assumed by the French. These lines, which were taken from the Germans, and quickly put into operating shape by U. S. army railroaders, during the early days of the Battle of France, had been of considerable military value.

Lt. Col. Garret C. White, of Buffalo, N. Y., representing the 2nd M. R. S., restored the track, rolling stock and installations to M. LeRoy, chief of communications, Caen, and Lt. Moulinier, chief of operations, Cherbourg, both of the French National Railways.

"We are giving the French possession of portions of the railway system just as quickly as the military situation permits, Colonel White explained, adding that American crews and equipment "will be moved to forward areas."

Military traffic still has priority, and American crews and locomotives will be provided to aid the French personnel in moving American freight, it was announced.

Reading "War Baby" Operating in France

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Present job mainly "advisory" to French, but it's always ready "in a pinch"

Company "B" of the Reading's "War Baby," the operating battalion under command of Lt. Col. Frederick W. Biltz of Pottsville, Pa., which maintained and operated the Army's privately-owned railroad at Camp Clairborne, La., and which later distinguished itself for its operations on the narrow-gage lines of the United Kingdom before taking over the LeMans railway yards in France early in August, is now acting more in an "advisory capacity" at its present station, reports Headquarters, European Theater of Operations, with the company's enlisted personnel working as hostlers and firemen "to ready the locomotives for French civilian crews." But "in a pinch," the dispatch continues, "when a tie-up threatens the efficiency of the line.' these army railroaders in B company, captained by John S. Fennell, Philadelphia, Pa., "will step in and remedy the situation."

It is related that one day in October a heavy French locomotive arrived at the enginehouse of B company's engine repair platoon at 3 p. m., with superheater units reported leaking. The French who were in charge ordered the engine to travel light to Paris, but upon inspection by Enginehouse Foreman T/Sgt. Edgar Tucker, East Peoria, Ill., it was found that the number two unit, second row, left side, had burst, and that repairs could be made on the spot. Typical of M. R. S. efficiency, the work was begun at 6 p. m., fire was drawn, the unit removed, repaired and replaced, and the locomotive was back in service by 3 a. m. the following day.

Strict check on the quality of water used in the locomotive boilers is maintained by 1st Lt. Robert C. Westley, mechanical engineer, Laureldale, Pa. He sends samples for chemical analysis to his battalion grand division headquarters of all water stations within the jurisdiction of the Reading unit.

There are regularly scheduled inspections of inbound, outbound and passing cars and rolling stock under jurisdiction of the car repair platoon of Company B, which is headed by 1st Lt. Richard E. Dufner, car builder of Birdsboro, Pa. He recently reported that in one week his crews had inspected 7,987 cars, of which 101 received light running repairs.

Company C, the operating company, headed by 1st Lt. Peter J. Pirrall, trainmaster, Norristown, Pa., is composed of engineers, firemen, conductors, flagmen,

switchmen, trainmasters, yardmasters and road foremen of engines. Two platoons handle road operations, one directed by 1st Lt. James B. Van Natta, Roselle, N. J., the other by 1st Lt. Frank B. Davis, road foreman of engines, Albany, N. Y. Each has 25 train crews, operating from opposite terminals of the division, and both foremen ride the trains, checking on operations.

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Company A, maintenance of way group, is divided into three platoons, under the direct command of Capt. Arthur C. Palmer, maintenance of way superintendent, Pottstown, Pa. The first platoon has handled track maintenance-raising, lining, and surfacing newly constructed track-under the supervision of 1st Lt. Francis G. Keens, track supervisor, Trenton, N. J. "They have kept up the right-of-way under straf-ing and bombing attack," reports Headquarters, "working hours on end without benefit of sleep or hot rations." The second platoon commanded by 1st Lt. Henry V. Plank, railway bridge and building supervisor, Reading, Pa., "fans out" over the division, making "on the spot" repairs to The third platoon has handled bridges. communications, and is commanded by 1st Lt. Richard H. Smedley, signal maintenance supervisor, North Wales, Pa. It is said that as the battalion has moved deeper into France "the lines have been found to have escaped the enormous damage inflicted on those of Normandy and Brittany." with little replacement now being called for.

November Export Traffic

Cars of export freight, excluding coal and grain, handlet through United States ports totaled 156,665 in the month of November, compared with 133,537 cars in November, 1943, or an increase of 17 per cent, according to the Association of American Railroads. Export grain unloaded at the ports totaled 3,386, compared with 4,772 in November 1943, or a decrease of 29 per cent.

The railroads handled 376 carloads of coastal freight in November compared with 781 in the same month in 1943, or a decrease of 52 per cent. The total of 160,-427 cars of export and coastal freight, excluding coal, handled through the ports represented an average daily unloading of 5,348 cars. This is the ninth consecutive month that the average daily unloading has exceeded 5,000 cars.

C. N. R. Welcomes War Wives to Bonaventure Station

In co-operation with the Canadian Red Cross, the Canadian National has established at Bonaventure station, Montreal, special facilities as a courtesy to the wives and children of Canadian servicemen, passing through Montreal enroute to new homes. These include a nursery, special rest room, and a third room called a "Welcome Canteen."

The pink and blue nursery has cribs, play pens, high chairs, rocking horses and other toys, and tables for bathing and dressing the babies. The rest room has four hospital beds, comfortable chairs and bathing facilities. Medicines, linens and clothes for the babies are supplied by the Red Cross, which also is in charge of these rooms. Like its counterparts in several U.

S. railway stations, the C. N. R. nursery provides care for infants while the mothers rest, eat, or go shopping or sight-seeing.

The Welcome Canteen has been set up in the station dining room, which has not been in use since the opening of the new Central station. Red Cross supplies the food and members of its Volunteer Food Administration Corps serve the meals. Special diets are prepared for children.

Locomotive Builders Want More Advance Orders

Locomotive builders represented by the Industry Advisory Committees of the War Production Board have informed that agency that orders for new locomotives, including foreign requirements, must be placed immediately if full advantage is to be taken of available manufacturing capacity. Present W. P. B. production schedules for large locomotives (that is, over 100 tons) are projected only through the second quarter of 1945, it was explained, and emphasis was put on the dangers in such a situation, both in loss of manpower to other industries and in delays in placing orders for and obtaining deliveries of components, such as injectors, superheaters, and feed water pumps, whose manufacturers must know the builders' requirements well in advance.

Since current production of locomotives is below the industry's capacity, according to the committees, military requirements can still be taken care of, and precedence over non-military orders would be given such production as a matter of course if later needs exceed advance schedules.

The large locomotive builders' committee recommended that the builders be allowed to deal directly with government procurement agencies in accepting orders for government non-military requirements without W. P. B, allocation. It also suggested that special committees representing both Dieselelectric and steam builders be set up to confer with W. P. B. officers on re-determination of the so-called lead time needed to turn out finished locomotives after all necessary materials have been obtained.

Representatives of small locomotive builders recommended continuation of the allocation of government purchases for various foreign requirements, as to steam locomotives, but did not consider allocation of Diesels for non-military requirements necessary at present, because production capacity in the industry was considered to be adequate to meet all military and other demands.

Production of small locomotives under a factory stock program that would result in production of a maximum number of units by the industry in each month and each quarter for commercial sale was recommended to the W. P. B., and manufacturers were asked to submit plans for production under such a program, together with material requirements, for final W. P. B. consideration.

War Department representatives discussed with the committees their contract termination problems and their responsibilities in the employment of returning veterans.

Tank Car Shipments of Oil to East—Correction

Tank car shipments of petroleum and petroleum products to the East-coast area during the week ended November 18 averaged 530,466 barrels a day. The story entitled "Pipe Lines Now Carrying Bulk of East's Oil," which appeared in the Railway Age of December 9, page 892, reported erroneously that the daily average for that week was only 107,136 barrels.

Vocational Guidance Program Is Set up by W. M. C.

The War Manpower Commission on December 10 made public its plans for an expanded "employment counseling service" in local offices of the United States Employment Service. The announced purpose of this service is to assist returning veterans, displaced war workers, and other job applicants to find the specific job or occupational field for which they are best suited, and so to aid the U. S. E. S. in placing workers in a more effective manner. The program will



Canadian Pacific Photo

C. P. R. "Bond" Car Ready for Six Transcontinental Trips

Recently done over at the railroad's Angus shops, for use in Canada's 7th victory loan drive, when this observation car left Montreal, attached to the transcontinental "Dominion," it was painted silver, white, black and light blue, and emblazoned with the "Flaming Dagger," emblem of the British 8th army. The car also bore in English and French the war bond slogan, "Buy One More than Before," and "Achetons une Obligations de Plus."

go into effect in stages during the next few months, as a nucleus of trained personnel is established in each state for the training of employees of the local employment offices in the procedures of employment counseling.

It was explained that it will continue to be U. S. E. S. policy to refer to "other agencies" those applicants whose requirements can be better cared for with the specialized facilities of such agencies.

I. C. C. Service Orders

Shipment of Irish potatoes from storage points in specified portions of Idaho, Oregon and California has been prohibited by Interstate Commerce Commission Service Order No. 259, except under permit supplied by the War Food Administration. This order applies to carload shipments by rail in cars of any type in intrastate or interstate commerce, and is supplemented by an order of the Office of Defense Transportation, effective at the same time, which applies a similar restriction on shipments by common, contract or private carriers. The orders were issued at the request of the War Food Administrator to facilitate his control of potato shipments.

Service Order No. 260, effective December 13, provided that bunker ice in refrigerator cars loaded, or to be loaded, with citrus fruits originating in Arizona, California, Florida or Texas, cannot be salted. Addition of salt to bunker ice by shippers during the process of precooling such cars prior to their movement in road haul service is permitted under an exception to the order, however, provided such salting of cars by shippers involves no additional switching service by the railroad. The order was issued, it was indicated, because of delays to refrigerator cars resulting from ordinary salting prac-

O. D. T. Again Advises Against a Florida Vacation

Another warning was directed to that element of the traveling public that is considering a Florida vacation trip this winter in a December 11 statement from the Office of Defense Transportation. Its point was that the travel flow into Florida originates at numerous northern and western points and through a comparatively long period, so that a certain amount of nonessential travel can be handled by the railroads entering that state, even though their available facilities are less than at any time since the war began. On the other hand, it added, the "mass return" of winter vacationists from a single area over a much shorter period creates a "critical transportation bottleneck," in which seekers for accommodations are more likely to find them unavailable.

The O. D. T. said that this season finds

42 per cent less Pullman space for civilian use available on New York to Florida trains than in 1940. In other sections of the country the relative situation is about the same, it added. While the number of coach seats available for all travelers between New York and Florida has increased about 40 per cent since 1940, the O. D. T. reported, travel in coaches has increased nearly 400 per cent, and the limited space that has been available for civilians is being further reduced by "steadily growing" furlough travel and by civilian travel which is considered "directly connected with the war effort."

Drums Used Again in Kerosene Traffic to New England

Shipment of kerosene in steel drums from Gulf coast refineries to New England will be resumed this winter, Petroleum Administrator Ickes has announced. This will be the third winter season in which the oil industry has had to resort to boxcar shipments of kerosene to meet the fuel requirements of this territory.

It was explained that increased military demands have made it necessary to shift additional tank cars into military service, thus further reducing the number available for use in the East coast oil movement for civilian purposes, so that the supply is not sufficient to meet the demand for such transportation. The Army has again arranged to supply 500,000 steel drums for the purpose. Last winter 1,004,813 barrels of kerosene were moved into New England in drums shipped in boxcars, according to the P. A. W.

LITTLE THOUGHT A BIT OF CARE AND INJURED MEN ARE VERY RARE

Poster No. 256, Which Constitutes the December Installment of the "All the Year—Every Year Safety Program," Is Now Being Distributed by the Commit-tee on Education, Safety Section, A.A.R.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since December 2, and which are of interest to railways:

Cotton Duck—Because of continued shortages of cotton duck for military tentage requirements, the restrictions of Direction 2 to M-91 have been extended indefinitely. The amended direction continues the requirement that all looms that

produced Army Duck, Numbered Duck, Shelter Tent Duck or Flat Duck during the first quarter of 1943, be operated only to produce the kinds of duck specified in the direction. The quantity of duck that any producer may have in inventory is limited.

-Allocation of lead is a possibility, the B. reported recently. No decision had Lead-W. P. B. reported recently. No decision had been reached as to the percentage of allocation which may be necessary. Government spokesmen stated that current lead consumption was exceeding production to such an extent that the government stockpile was being reduced below a safe margin. Continued heavy civilian demand for such purposes as storage batteries and paints have cut heavily into the dwindling supply.

Pencils-A supply of wood case pencils adequate to meet consumer needs will continue to be available during 1945, members of the Wood Case Pencil Industry Advisory Committee agreed at a recent meeting.

Small Steam Locoractives—Committee members recommended continuation of the allocation of government purchases of small steam locomo-tives (up to 100 tons) for various foreign re-quirements at a meeting this week of the Build-ers of Small Locomotives Industry Advisory Committee. Allocation of Diesel locomotives for these non-military requirements was not considered necessary because production capacity in the industry is sufficient to meet all demands.

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Steel Pipe-The Pipe Industry Advisory Comsteel Pipe—The Pipe Industry Advisory Committee at a recent meeting recommended that a proposed increase in steel mill pipe inventories be postponed because of increasing heavy ammunition requirements. This action followed disclosure that the expanding shell program had crowded bar, rail and structural mills to capacity and might fan out to include the seamless pipe mills. Seamless pipe may not only be reduced through direct curtailment of facilities, but mills used for rolling bar rounds and supplying topped" steel (needed in the production of pipe) may cut supplies of this product still

Steel Products Steel warehouses will be al-wed to increase their stocks of general steel lowed to increase their stocks of general steel products under Direction 3 to Order M-21-b-1. This liberalized plan will not be allowed to inter-fere with war production schedules, W. P. B said. The new direction excludes merchant trade said. The new direction excludes merchant trade products such as pipe, galvanized sheets, tin and terne plate and wire products. Present and ex-pected production of these products does not war-rant additional warehouse stocks at this time, the direction stated.

Western Pine—Western pine lumber, which is in critically short supply, may be received only by specific authorization from the W. P. B., and for essential uses where other lumber caube substituted.

Direction 2a to L-335, implements W. P. B.'s

Direction 2a to L-335, implements W. P. B.'s allocation of lumber for the first quarter of 1945, and covers Idaho white pine, ponderosa pine and sugar pine produced by sawmills cutting 10,000 f. b. m. or more of any kind of lumber per day. These sawmills and distributors may fill orders for western pine lumber received after December 2, only if they carry the certifications given in the direction. These certifications are in addition to the regular certificates required by consumers and distributors under Order L-335. Applications may be by letter stating fully the use to which the lumber is 60 be put and the quantity desired. the lumber is to be put and the quantity desired.

Prices

Steel Products-Increases in ceiling prices ated Products—Increases in ceiling prices of 11 carbon steel products including rods, bright wire, bright nails, lead and furnace annealed wire, pot annealed wire, galvanized barbed wire, staples and spring wire has been granted Pittsburgh Steel Company, Pittsburgh, Pa., by the O. P. A. in order to allow the company to produce without financial hardship, O. P. A. announced. This is in no way connected with the duce without mancial hardship, O. P. A. announced. This is in no way connected with the National War Labor Board decision of November 23, involving wage adjustments of employees in 86 basic steel companies, O. P. A. said. It is the result of a petition filed by the Pittsburgh company. The increases range from 10 cents to 50 cents per hundred weight and will enable the company to realize its manufacturing costs. the company to realize its manufacturing costs on certain major steel products, O. P. A. said.

GENERAL NEWS

Conductors Lose in Supreme Court Test

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Fail in effort to oust trainmen's union as P. R. R. bargaining agent

The Order of Railway Conductors, having engaged in a jurisdictional dispute with the Brotherhood of Railroad Trainmen as to certain employees of the Pennsylvania which led it first to the National Mediation Board and finally, through the lower courts, to the Supreme Court of the United States, has failed in that court to obtain relief from findings adverse to its claims. In addition to the trainmen, the Pennsylvania was a defendant in the Supreme Court proceedings, in which the opinion was delivered December 11 by Justice Roberts, with Justice Rutledge concurring in the result. There was no expression of dissent.

Trainmen Won Out.—The litigation grew out of a discussion in 1941 between the carrier and the two brotherhoods, designed to adjust classifications of conductors, rates of pay therefor, and the control of the conductors' extra board. The road's road conductors were then represented by the O. R. C., while the B. R. T. represented its road brakeman, yard conductors, yard brakemen, baggagemen and switchtenders, and contracts with the road had been negotiated jointly by the two brotherhoods, under Railway Labor Act provisions, including one effective in 1927, which the O. R. C. contended still is effective, with modifications, as to road conductors.

The joint discussions in 1941 broke up when the conductors withdrew in protest against the attitude of the trainmen, in which the carrier concurred, with respect to the matters under consideration, and the road and the trainmen then entered into an agreement, some phases of which the conductors claimed to be in violation of the Railway Labor Act and therefore void, thereby, they asserted, leaving in effect the previous agreement, to which the O. R. C. was a party. The carrier, however, after having made the 1941 agreement with the trainmen, refused to bargain with the O. R. C.

Say Union and Railway "Conspired."
—Upon the ground that the railroad and the B. R. T. had engaged in a conspiracy to discredit the O. R. C. and to coerce and interfere with the conductors in its employ in their choice of a bargaining representative, the O. R. C. in September, 1942, asked the Mediation Board to certify it as the bargaining representative of the Pennsylvania's road conductors, but objected to an election. The board, however, ordered an

election to be held, and then certified the trainmen's brotherhood as the authorized representative of the road conductors. In this the board erred, the O. R. C. claimed, because it failed in its duty to find first that the alleged unfair labor practices do not amount to unlawful coercion or interference.

The conductors' brotherhood asked the courts, in effect, to set aside the board's ruling, to find that the agreement between the railroad and the trainmen was an illegal infringement on its rights as bargaining agent for the road conductors, to find that the O. R. C. had the exclusive right to bargain for these conductors, and to require the road to bargain with it in that capacity. The federal district court held that the facts alleged failed to establish a cause of action, and dismissed the complaint, but an appeal was taken. The court of appeals in its turn dismissed the appeal on the ground that it was without jurisdiction, in view of the Supreme Court's decision in the Switchmen's Union case, in which, as noted in Railway Age of November 27, 1943, page 876, the final authority of the Mediation Board was upheld in settling jurisdictional disputes.

The O. R. C. appeal to the Supreme Court was based on its contentions with respect to the railroad's and the trainmen's actions, and not to the authority of the N. M. B. The high court declined to grant any of the conductors' pleas, however, on the general ground that to do so would amount to action 'in the teeth of the board's certification" and in its absence as a litigant. It therefore failed to take notice of what it termed a "wide range" of arguments and suggested remedies upon failure or refusal of the Mediation Board to act on charges of coercion antecedent to an election or of others designed to deprive a carrier guilty of such coercion of "benefits" of the board's certification of the union it favored.

Batcheller Promoted at W. P. B.

The War Production Board has announced the appointment of Hiland G. Batcheller as chief of operations, with authority to handle broad policy questions under the chairman's direction, and to act as chairman during the absence of that officer, J. A. Krug, from Washington. Harold Boeschenstein has been named operations vice-chairman of the W. P. B., succeeding Mr. Batcheller in that post.

More Time for Veterans to Seek Old Jobs

President Roosevelt has signed H. R. 5386, the recently-enacted bill amending the Selective Service Act by extending from 40 to 90 days after release from service the period in which a veteran of World War II may apply for reemployment at his pre-war job.

Class "A" Passengers Shifting to Airlines

Upward trend since 1938 is shown in analysis by I. C. C. bureau

From 1938 to 1941, before they were required to turn over approximately onehalf of their aircraft for military use, the domestic air lines took on an increase of 222.5 per cent in the number of passengers carried, "or approximately 25 times the per cent of increase in Pullman revenue passengers," according to the analysis of "air line penetration of the Class 'A' passenger market" which appears in the latest issue of the "Monthly Comment on Trans-Statistics, published by the portation Bureau of Transport Economics and Statistics. Interstate Commerce Commission. The analysis is timely in coming shortly after President Roosevelt's action removing limitations on the number of planes the air lines may operate, and the release through the Surplus War Property Administration of the first transport aircraft declared surplus by the War Department (see Railway Age, issues of December 2, page 858, and December 9, page 899).

What "Class A" Traffic Is.—Class "A" passenger traffic is defined in the I. C. C. Bureau analysis as "air line plus Pullman," the Bureau pointing out that this comparison "favors the air lines as it does not include passengers in railway owned parlor and sleeping cars." During the 1938-41 period, the proportion of Class "A" revenue passengers carried by the air lines increased from 7 to 18.23 per cent.

The now-removed wartime restrictions on the number of planes which may be operated by the air lines had been effective since 1942; and naturally the years subsequent to 1941 have shown a drop in the proportion of Class "A" passengers carried by the air lines. Their proportion in 1942 was 10.44 per cent; 1943, 8.24 per cent; first six months of 1944, 8.25 per cent.

The growth of air line revenue passengermiles, the Bureau found, "has followed a somewhat different trend." From 1938 to 1941 revenue passenger-miles increased 189.6 per cent, while Pullman revenue passenger-miles were increasing 21.8 per cent, Moreover, air line revenue passenger-miles increased in 1942 and 1943, when the number of air line revenue passengers declined. The failure of the air line passenger-miles to decrease is attributed to "a sharp increase in the average length of the air line revenue passenger trip, largely caused by an increase in transcontinental travel by military per-

(Continued on page 940)

Reports on Postwar Prospects for Cotton

First of its 40 community studies issued by A.A.R. research group

Approximately 12,500,000 bales of cotton, the equivalent of 3,125,000 tons, will be available for movement by all forms of transportation in the first normal post-war year and for the succeeding two or three years, according to a report on "Raw Cotton and Cotton Linters," which has been issued by the Subcommittee for Economic Study of the Railroad Committee for the Study of Transportation. This is about the average annual production in the five-year period 1935,1930

The predictions run to 1949 on the basis of assumptions that the war with Germany will end early in 1945, and the war with Japan by 1947. It was found "useless at this time to try to conjecture" what may be the situation after 1949. "It is impossible," the report said, "to foresee the price of American cotton in relation to foreign cotton and to the synthetic fibers. Moreover, it cannot be known now whether the government will continue its artificial support of cotton-price levels or will initiate a cotton program of more farseeing helpfulness."

First of 40 Commodity Studies-The report is the first of some 40 commodity studies expected to come from this subcommittee which has been called one of the most important of the 15 engaged on the research program sponsored by the Association of American Railroads and functioning under the direction of A. A. R. Vice-President R. V. Fletcher. Chairman of the subcommittee is J. V. B. Duer, assistant to vice-president, Pennsylvania, while the commodity studies are under the general direction of Loyd J. Kiernan, former railroad statistician of the Equitable Life Assurance Society and prior to that a member of the Illinois Central's traffic department staff.

The commodity studies have been organized into nine groups, and the present report comes from Group 8 which is dealing with textiles under the supervision of W. L. Taylor, assistant to freight traffic manager, Southern. The foreword explains that the comments and conclusions "are necessarily somewhat preliminary," since the post-war prospects for cotton, which has no usefulness except as a raw material, "cannot be definitely estimated until we are able to complete our study of the textile industry." The latter study "is already well under way."

A Comprehensive Report—Meanwhile the present study has been issued in an attractive book of 100 pages, printed on high-grade paper and well illustrated with halftones and charts. And it has been copyrighted by the A. A. R. Its nine chapters cover the subject in comprehensive fashion while a summary and brief statement of conclusions are conveniently arranged on introductory pages.

Opening chapters consider the history of

cotton production in the United States, and marketing. Then comes the chapter on transportation wherein the rate situation, the movement by various transportation agencies, and the importance of the business to the railroads are discussed. In the latter connection, it is pointed out that in 1942 the Class I roads originated 227,400 cars of cotton, collecting total revenues of \$42,075,000, compared with \$39,204,000 in 1928. Average cotton revenue in 1942 was \$80.39 per car and \$3.72 per ton, compared with \$61.32 per car and \$5.40 per ton in 1928.

Rate Adjustments Effective-Previously it had been noted that for many years the railroads, with but minor exceptions, maintained only any-quantity rates on cotton; and that carload rates lower than any-quantity rates, were not established until 1932. Evidence is found that these carload rates, as well as truck-competitive rates on an any-quantity basis were instrumental in returning to the rails cotton tonnage which sought other forms of transportation during the early 'Thirties. Also, the establishment of carload rates has tended to conserve car supply, and, as shown above, has increased the average revenue per car. The average load increased from 12.1 tons in the 1928-31 period to 19.6 tons in 1942.

In the report is a chart showing the relationship between the ratio of railroad-handled tons of cotton to cotton production and the prices received by the farmers for cotton. The correspondence of the trends between the two is found "interesting"; and it "may have implications of great significance." The indication is that "the higher the market price the less is the tendency to divert cotton from the rails." And, as the report continues, "an important suggestion to be derived from this showing is that activities which promote good prices for cotton may be a profitable substitute for rate reductions."

Most Cotton Stays in South—Of the 3,125,000 tons of cotton expected to be available for transportation in each of the first three or four post-war years, 1,420,000 tons would originate in eight southern states, 1,500,000 tons in five southwestern states, 200,000 tons in three western states, and 5,000 tons in all other sections. The great bulk of this traffic (2,450,000 tons) would terminate in seven southern states, while 380,000 tons would go to New England and middle Atlantic states, 200,000 tons to Texas, and 95,000 tons to all other points.

The subcommittee's prediction that the cotton traffic will remain on this level for three or four years after the war is based on its finding that all countries will come out of the conflict suffering from a clothing, industrial, and household cotton shortage. Meanwhile the mills of Europe have been largely destroyed or will be by the end of the war, as may be expected to be the fate also of Japan's textile industry. Moreover, consumers in this country have accumulated large demands for goods and money to buy them.

Long-Run Outlook Uncertain—As indicated above, the report finds the outlook uncertain after these demands of the immediate post-war period are satisfied. It (Continued on page 941)

Georgia Seeks Relief in the Wrong Place

So railroads tell Supreme Court in challenging legality of rate complaint

The state of Georgia's attempt to file in the Supreme Court of the United States a bill of complaint against twenty railroads, charging them with entering into a conspiracy to fix and maintain unlawful freight rates, should not be entertained, the railroads have informed the court in returns to an order to show cause why leave to file the complaint should not be granted. These replies will be supported by argument of counsel, scheduled for January 2, 1945, dealing primarily with the propriety of the state's effort to get the case before the highest court as an original proceeding without first going through the lower courts.

Briefs were filed by seven southern roads jointly, by the Seaboard Air Line, by the Chesapeake & Ohio and Nickel Plate jointly, and by a group of ten northern roads. The proposed complaint is referred to as State of Georgia vs. Pennsylvania. In addition to that road and the three others named, the respondents are the Atlantic Coast Line; Carolina, Clinchfield & Ohio; Louisville & Nashville; Illinois Central; Gulf, Mobile & Ohio; Nashville, Chattanooga & St. Louis; and Southern (referred to as the seven southern roads); and the Baltimore & Ohio; Chicago & Eastern Illinois; Chicago, Indianapolis & Louisville; Erie; New York Central; Norfolk & Western; Richmond, Fredericksburg & Potomac; Wabash; and Western Maryland (these, together with the Pennsylvania, being referred to as the ten northern roads).

Conspiracy Alleged.—As summarized in the C. & O. brief, the state has alleged that the respondent railroads have entered into a conspiracy by which they have fixed and maintained interstate freight rates at arbitrary and non-competitive levels; that these rates discriminate against localities, ports and shippers in Georgia in favor of those in other states; and that these carriers have exacted from Georgia as a shipper, and from shippers located in Georgia, unjust, unreasonable, non-competitive, and preferential charges. As relief, the state seeks an injunction against future fixing of rates by such conspiracy and with such alleged effect, and also asks that it be awarded damages for the injury claimed to have been suffered.

The questions presented by the order to show cause turn, not upon the merits of the allegations set forth but upon the original jurisdiction of the Supreme Court under the circumstances, in the light of the provisions of section 2 of Article III of the Constitution, the southern railroads pointed out. A secondary question, they added, is whether the state's complaint presents a justiciable case or controversy within the jurisdiction of any court.

A Question of Jurisdiction.—The southern roads argued, first, that the Supreme Court does not have original juris-

diction in this complaint, as asserted by Georgia, because two of the defendants named therein are citizens of that state, that is, the Seaboard Air Line, which is a corporation created under the laws of Georgia and four other states, and the N. C. & St. L., which has been held by the courts to be a Georgia corporation, and hence a citizen of Georgia, in its capacity of lessee of the state-owned Western & Atlantic. In its position.

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Hence, a state's right, under the Constitution, to bring an original suit in the Supreme Court does not run to its own citizens, these briefs contended. In this connection, the northern roads asserted that the complaint failed to present a "case" or "controversy," within the meaning of the language of the Constitution, to which the state is a party and which is within the judicial powers granted federal courts.

Georgia's allegations of conspiracy were inserted in the complaint, the southern roads said, "merely to give color to the alleged rights of Georgia to bring suit within the original jurisdiction of this court. The charges of conspiracy and violation of the Anti-trust Act were so interrelated with charges of illegal rates and with the essential purpose of the bill to secure rate reductions as not to be susceptible of consideration separate therefrom. . . . The real purpose of the bill was to have this court reduce rates between points in Georgia and the North and remove an alleged discrimination against Georgia in the existing rate structure-a legislative function."

Continuing, these roads said, "Whether Georgia and the South have been shackled to the nation as colonial dependencies or should be readmitted to the union on a basis of full equality are political questions, not judicial questions for this court. Whether the prevailing freight rate structure is discriminatory and should be ended as a trade barrier is the typical legislative question committed to the administrative jurisdiction of the Interstate Commerce Commission by the Interstate Commerce Act, not a justiciable question for this court in such an original suit.

"Whether the Interstate Commerce Commission has been derelict in its duty and has been a party to and condoned, aided and abetted illegal practices might be a political question to present to Congress or a question to submit to the Senate as a court of impeaclment. It is certainly not a justiciable question for this court in an original suit."

The Law Provides a Remedy .- The Interstate Commerce Act, and not the Anti-Trust Act, provides the remedy for the alleged discriminatory rates and for rate damages, this brief pointed out, and the C. & O. brief developed the same argument, saying that Georgia cannot maintain an action under the anti-trust laws based on conspiracy among carriers to fix and maintain rates. "For the redress of that injury the Interstate Commerce Commission has plenary and exclusive jurisdiction." Neither can the state assert its right to seek such relief on common law principles, said the C. & O. further, because here the legal injury must result from the rates, not from the alleged conspiracy, and no claim has

been made that the rates were other than those lawfully established.

The ten northern roads in their brief developed the argument that the state's complaint has failed to make a case for relief from the courts that can be sustained under either the anti-trust laws or the Interstate Commerce Act, in view of well-established procedure in such situations, under which have been developed the principles (1) that a shipper may not recover damages from a railroad, where the charge is based on illegal combinations to fix rates that are subject to I. C. C. jurisdiction, and (2) that injunctive relief will not be granted, except to the United States, with respect to alleged anti-trust law violations involving matters subject to I. C. C. regulation and jurisdiction. Further, said the northern roads, actions for damages or injunctive relief will not be entertained by the courts, when based on claims of preferential or discriminatory characteristics or otherwise unlawful nature. in the absence of a prior finding of such unlawfulness by the commission.

How Chaos Would Result.—Apart from and in addition to these legal considerations, the southern roads contended, other elements merit some attention. "The wisdom of the law in denying court jurisdiction of such a suit as this is strikingly illustrated," they asserted, "by a consideration of the impossible results which would attend any attempt by this court to grant the relief prayed in the amended bill. Under express mandate of the Transportation Act of 1940, the commission now has under general investigation, in a proceeding to which Georgia is a party, the lawfulness of the very interterritorial rates sought to be attached here by the amended bill.

"A decree here by this court would not bind the United States or the commission.' the argument continued. "It would not bind or benefit any other southern state save Georgia or the citizens of and shippers in any other states than Georgia. It would bind no railroad except the twenty here named defendants. Such a decree would instantly produce impossible discriminations and prejudice as between shippers in the other southern states, who would have to continue to pay tariff rates, and shippers in Georgia over these twenty railroads, who would pay a different set of rates fixed pursuant to this court's decree. Like discrimination and prejudice would be set up as between shippers in Georgia, depending on whether they would ship over these twenty railroads or over the several railroads domiciled in Georgia, which are not here named defendants, and which would not be bound by a decree here.

"The amended bill seeks to submit to this court, in advance of decision by the commission, administrative questions now pending before the commission but still undecided, and thus violates the public policy of the provisions of the Judicial Code requiring that all suits to review orders of the commission must be brought in the district courts against the United States as a party defendant and giving this court direct appellate jurisdiction to review decisions of the district courts in such suits. Such a suit has never been entertained by this court in its original jurisdiction. Twice this court has refused original jurisdiction to review

orders of the commission. . . . A litigant before the commission, asserting a remedy under the Interstate Commerce Act, cannot pari passu pursue another remedy, in the courts under the Sherman (Anti-trust) Act, for the same grievance."

Metzman on Directorate of Industry Association

Gustav Metzman, president of the New York Central, has been elected a director of the Commerce and Industry Association of New York, Inc.

Pacific Coast Railroads Set Record in Cars Handled

Railroads serving the Pacific Coast set a record during November in the number of cars moved to that area, according to W. F. Kirk, western director of the Railway Transport Department of the Office of Defense Transportation. The lines moved an average of 4,800 carloads westward a day in November compared with 4,100 a day in November last year.

Freight Forwarder Insurance

The Interstate Commerce Commission, Division 5, has prescribed rules and regulations for freight forwarders subject to Part IV of the Interstate Commerce Act, governing the filing and approval of surety bonds, policies of insurance, qualifications as self-insurer, or other securities and agreements. The report and order, dated October 11, are in Ex Parte No. 159, the regulations being prescribed to become effective February 1, 1945.

Fraser to Represent Unions at London Labor Congress

Harry W. Fraser, president of the Order of Railway Conductors, has been selected by four rail unions, the O. R. C., the Brotherhood of Locomotive Firemen & Enginemen, the American Train Dispatchers Association and the Brotherhood of Railroad Signalmen of America, to represent them at a world labor conference called by the British Trades Union Congress at London, England, on February 6.

Schenley Trucking Subsidiary Called Contract Carrier

Operations of the Schenley Distilleries Motor Division, Inc., subsidiary of the Shenley Distilleries Corporation, in the transportation of property of the latter and its other affiliates have been found by the Interstate Commerce Commission, Division 5, to be operations of a contract carrier by motor vehicle as defined in section 203 (a) (15) of the Interstate Commerce Act. The decision in No. MC-103763 (Sub-No. 1) follows through to refuse a permit authorizing continuance of the operations, because of a failure to show that they would be consistent with the public interest and the national transportation policy.

The majority report, representing the view of Commissioners Lee and Rogers, reached its adverse decision after citing various previous decisions of the commission. Chairman Patterson dissented, holding that the applicant was a private carrier. That was the position taken by the applicant, which, however, filed the application

to secure a determination of its status. In rejecting that contention while at the same time denying a permit, the majority suggested that "if applicant elects to attempt to justify operation as a contract carrier, it should petition for further hearing for the purpose of introducing further proof." Meanwhile, the operations "should immediately be discontinued." The report also noted that "numerous rail and motor carriers" opposed the application.

North Western Enginemen Sue for Seniority Lost in 1920

Thirty-one enginemen of the Chicago & North Western filed suit in the Superior Court at Chicago on December 8 to regain seniority lost in a strike in 1920. The men were "obliged to desert their employment" on April 3, 1920, their attorney stated in a bill asking a mandatory injunction. He related that on April 20, the North Western issued an ultimatum that the enginemen must sign "the book" by 7 a.m. on April 22 or lose their seniority rights. The strike ended on September 26 and the enginemen went back to work but, the bill said, they were assigned to jobs other than on the basis of their former rights. They have been working since on rights starting at the end of the strike although some of them, their attorney said, have been in service since

The bill contended that the North Western violated rule 604 of a working agreement which permits an engineman to lay off six months without loss of seniority and that the men were deprived of rights without a hearing as provided by rule 41.

Three Transportation Unions Plan "Important" Meeting

General chairmen of the Brotherhood of Locomotive Firemen and Enginemen, the Order of Railway Conductors, and the Switchmen's Union of North America will gather at Chicago shortly after the first of the year for a "highly important na-tional conference," said a story in the December 9 issue of "Labor." The conference will consider a program "to correct inequities" to which railroad employees are now subjected, and "to solve the many problems that will face rail workers after the war." Presidents of the three unions -D. B. Robertson of the B. of L. F. & E., H. W. Fraser of the O. R. C., and T. C. Cashen of S. U. of N. A .- have been working for some time on a study of these matters, the "Labor" article said. They have notified their chairmen to hold them-selves in readiness for the Chicago conference, the date for which will be announced shortly.

Air Lines Insist on Retaining Their Monopoly

The members of the Air Transport Association of America have adopted a resolution opposing any change in the provisions of the Civil Aeronautics Act of 1938 regarding the control of an airline by "surface carriers."

In unanimous action taken at their recent annual meeting in Washington, D. C., 22 commercial air carriers voiced the belief that public interest requires the growth and development of air transportation to further the commerce and national security of the United States, and that this growth and development can be secured only if the interests of air transportation are not "subordinated" to the interests of surface transportation in the management and control of air carriers.

Following discussion of the advisability of the air transport industry supporting the policy of restricting control of one mode of transport by another, as it was said to be exemplified in the Panama Canal Act, the Motor Carrier Act, and the Civil Aeronautics Act, it was voted that the association should support this restrictive policy, and, in do doing, should express the industry's opinion in "all proper ways and places."

It was further agreed that any changes in the Civil Aeronautics Act which would be in conflict with this attitude should be opposed. It was also voted that under that act, "properly interpreted," any extension of a route controlled by a "surface carrier" should be regarded in the same light as a new route and subject to the same provisions of the act as a new route.

American Standards Association Elects Officers for 1945

Henry B. Bryans, executive vice-president and director of the Philadelphia Electric Company, was re-elected president of the American Standards Association at the annual meeting of this group in Hotel Roosevelt, New York, December 8. In addition to his first term as president, he has been also a member of the board of directors since 1941.

Other officers of the Association for the coming year are: Vice-president, George S. Case, chairman of the board of Lamson and Sessions; chairman, Standards Council, H. S. Osborne, American Telephone & Telegraph; and vice-chairman, Standards Council, E. C. Crittenden, National Bureau of Standards. All three were reelected.

Salaries Over \$10,000 Take 0.58% of Payroll

Although more Class I railroad officers received annual salaries in 1943 of \$10,000 or more than in 1942, the aggregate compensation of the 1,286 in this group in 1943 was less than the total received in the previous year by the 1,228 then included. The average compensation of the individuals involved showed a corresponding decline, being \$16,504 in 1943 as compared to \$17,316 the year before. In 1938, there were 1,076 officers whose annual salaries were \$10,000 or more, and their average compensation was \$17,331.

This information, derived from annual reports returned by the carriers, is summarized in Statement No. 4443 of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. This publication, just made public, shows that the total 1943 compensation of the \$10,000-and-over salary group was \$21,224,243, or 0.58 per cent of the year's total payroll for all Class I roads, including Class I switching and terminal companies and 20 carriers in that class who reported no salaries of \$10,000 or more.

The \$10,000-and-over group made up 0.092 per cent of the total number of employees of the same roads.

As in 1942, twenty salaries of \$60,000 and over were reported for 1943, their aggregate of \$1,370,000 accounting for 6.46 per cent of the total paid to the \$10,000-and-over group. Those whose salaries were in the \$10,000-to-\$14,999 range received \$7,106,651, or 33.48 per cent of the total for the group under study. There were 190 individuals whose annual compensation was \$25,000 or more in 1943.

November Employment 3.53 Per Cent Above November, 1943

Railroad employment decreased 0.03 per cent—from 1,409,663 to 1,409,231—during the one-month period from mid-October to mid-November, but the November total was 3.53 per cent above November, 1943, according to the summary prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-1939 average, was 136.9 for November, as compared with October's 133.7, and November, 1943's 132.2.

The fractional decline in November employment under the previous month was due to the 1.76 per cent drop in the maintenance of way and structures group, which more than offset increases of less than one per cent in each of the other groups. All groups were above November, 1943, the range being from the 8.84 per cent increase in the maintenance of way and structures group to the 0.41 per cent increase in train and engine service employees.

Call Express Rates Too Low

The New England Motor Rate Bureau has filed a complaint with the Interstate Commerce Commission alleging that the rates applied by the Railway Express Agency between points in southeastern Massachusetts and Rhode Island are unjust and unreasonably low, constituting a "destructive competitive practice" in violation of the National Transportation Policy as set forth by Congress. According to the complaint, express rates were reduced in 1939 to a basis equivalent to or below those of competitive truckers, and remain at that level, even though truck rates subsequently were increased in general, about 10 per The commission has been asked to investigate this situation and to correct the alleged inequities.

13,000 Men at Work on Natal-Rio de Janeiro Rail Link

Interest is high in Brazil over the \$33-million, four-year (1944-47) program for completing the country's first north-south rail link, now under construction between Natal and Rio de Janeiro, the Department of Transportation, Office of Inter-American Affairs reports.

Likening the Brazilian fervor to that in the United States when the first trans-continental railroad was completed with the driving of a golden spike at Ogden, Utah, May 10, 1869, the Department further reveals that there are now 13,000 men at work on this 336 miles between Montes Claros and Contendas, one of the two missa

SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 131 reports (Form IBS) representing 135 steam railways (Switching and Terminal Companies Not Included)

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	All Class I Railways			
	For the month of September		For the nine	months of
Income Items	1944	1943	1944	1943
1. Net railway operating income\$8 2. Other income	14,675,081	\$110,258,970 14,218,617 124,477,587	\$847,884,524 134,254,720 982,139,244	\$1,082,556,134 125,330,242 1,207,886,376
4. Miscellaneous deductions from income 5. Income available for fixed charges. 10 6. Fixed charges: 6-01. Rent for leased roads and equip-		2,745,790 121,731,797	29,774,073 952,365,171	22,363,757 1,185,522,619
ment 6-02. Interest deductions 6-03. Other deductions 6-04. Total fixed charges 7. Income after fixed charges 8. Contingent charges	14,588,697 28,304,692 122,903 43,016,292 58,266,512 2,721,688 55,544,824	14,405,079 35,291,972 130,126 49,827,177 71,904,620 2,351,222 69,553,398	120,532,041 302,995,892 1,162,411 424,690,344 527,674,827 24,743,859 502,930,968	131,044,449 323,683,438 1,113,093 455,840,980 729,681,639 21,425,741 708,255,898
11. Amortization of defense projects 1		26,470,446 11,760,704	240,204,841 137,587,372	236,942,468 100,736,406
12. Federal income taxes	20,590,609	127,846,736	1,016,235,424	1,066,306,883
13. Dividend appropriations: 13-01. On common stock 13-02. On preferred stock Ratio of income to fixed charges (Item	1,073,187	9,348,745 697,908	95,067,535 21,003,474	96,363,386 20,407,175
5 ÷ 6 - 04)	2,35	2.44	2.24	2.50

		· All Class I	All Class I Railways	
		Balance at end	of September	
00 1	Selected Assets and Liability Items	1944	1943	
	its in stocks, bonds, etc., other than those of affiliate		\$585,673,262	
22. Temporar; 23. Special d 24. Loans and 25. Traffic an 26. Net balan 27. Miscelland 28. Materials 29. Interest a 30. Rents rec	y cash investments eposits d bills receivable d car-service balances—Dr. ce receivable from agents and conductors cous accounts receivable and supplies und dividends receivable eivable crent assets	1,752,029,182 170,866,594 327,679 42,683,670 145,172,926 628,405,038 602,231,350 28,143,667 2,305,390	1,046,327,293 1,622,943,405 167,322,643 246,611 35,920,462 171,068,789 634,627,438 529,310,830 23,139,684 1,632,066 54,116,373	
32. Total	current assets (items 21 to 31)	4,574,945,426	4,286,655,594	
40. Funded de	ebt maturing within 6 months ²	267,469,901	81,151,595	
42. Traffic and 43. Audited a 44. Miscelland 45. Interest m 46. Dividends 47. Unmature 48. Unmature 50. Accrued t	l bills payable ⁸ d car-service balances—Cr. ccounts and wages payable cous accounts payable matured unpaid matured unpaid d interest accrued d dividends declared d rents accrued ax liability rrent liabilities	216,160,495 429,672,508 128,586,948 59,974,307 15,057,936 65,180,932 7,410,890 24,584,625 1,793,277,658	14,492,602 152,428,113 383,918,419 113,837,356 55,950,042 15,154,565 65,026,143 7,475,602 23,778,272 1,614,776,438 74,312,869	
52. Total	current liabilities (items 41 to 51)	2,852,186,326	2,521,150,421	
53-01. T	of accrued tax liability: J. S. Government taxes Other than U. S. Government taxes	1,633,048,271 160,229,387	1,453,422,089 161,354,349	

¹Represents accruals, including the amount in default.

²Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.

³Includes obligations which mature not more than one year after date of issue.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.

Subject to revision.

ing gaps in the north-south meter-gage

The Central do Brasil railway, working north in constructing its 149-mile stretch between Montes Claros and Monte Azul, already has 38 miles of this line in operation, and predicts early completion of an additional 45 miles. The National Railway department, in charge of construction southward on the 187-mile section between Cotendas and Monte Azul now has completed 20 miles of line, and expects soon to establish service on an additional 8 miles This would reduce the original gap to 225

The second break in the Rio de Janeiro-Natal line is the 79-mile stretch between Palmeira dos Indios, at the southern end of the Great Western of Brazil Railway, and Colegio, a port on the Sao Francisco river, just opposite Propria, the northern railhead of the Leste Brasileiro railway. This new line will be an extension of the Great Western of Brazil.

It is expected that the rolling mills at Monlevade can produce about 3,000 tons of 65-lb. rail a month, or enough for 31 miles of meter-gage line. Nearly 62 miles of junked rails have been salvaged as well, the report adds.

Vacation Conferences Begun

Conferences between carriers' conference committees and representatives of the 14 non-operating unions on the demands for longer vacations with pay were begun at Chicago on December 7. It is anticipated that the meetings will continue for

several days and then be adjourned until after the holidays. The unions are asking that the present agreement, which provides one week's paid vacation a year, be expanded to 12 days for employees who work at least 160 days in the preceding calendar year; 15 days after two years of service; and 18 days after three.

C. T. Ripley Addresses Chicago Car Men

In spite of adverse weather conditions, the December 11 meeting of the Car Foremen's Association of Chicago was one of the best attended monthly meetings recently held, the subject, "Wheels for Post-War Service," being presented in a paper by C. T. Ripley, chief engineer, Technical Board, Wrought Steel Wheel Industry. Mr. Ripley briefed his paper in presenting it and subsequently raised a number of controversial points and answered questions by referring to five large charts which greatly facilitated the explanations.

One of the more important points stressed in Mr. Ripley's paper was the possibility of large economies by using various types of steel wheels in the respective services for which they are designed and by improved wheel shop practices which Mr. Ripley stated are in general badly needed. One member, in the discussion, agreed with the statement that present wheel shop practices leave much to be desired and, in fact, termed them pediculous

Mr. Ripley emphasized the constant drive for perfection in steel wheel design and construction to meet even the most severe operating requirements, since the stake in human lives, as well as physical property, is so large. He referred to the possible need of balancing passenger car wheels for the super-speeds of tomorrow and stated that balancing machines have already been developed for this purpose and experiments are being made to find a satisfactory means of correcting any conditions of unbalance which may be found.

In general, Mr. Ripley presented pertinent information regarding steel wheels in locomotive, as well as passenger and freight, service, since car wheel shops sometimes have to handle all three classes of wheels.

Nickel Plate Issues Second **Industrial Booklet**

The Nickel Plate has published the second of a series of four booklets, in this one setting forth statistics and other information pertinent to industrial and agricultural development "Along the Lines in Indiana." Issued by the Industrial Development department of the railroad, the 109-page pamphlet, like the first dealing with Ohio, is written in an informal manner and is presented to the reader through the fictional character, "Nick Plate."

Maps and tabulations cover such topics as electric power, natural gas lines, mineral resources, agricultural income, livestock, sugar beets, mint, hemp, onions, county statistics on grains and figures on animals.

As Nick Plate draws the reader from town to town along the railroad's lines in Indiana, he tells bits about local history, touches on population and utilities and notes lakes, fish hatcheries and state recreational facilities. When he announces the "End of the Line in Indiana," he reminds the reader that the third booklet will be out before long, suggesting "Nickel Plate trains leaving soon for Illinois."

For those desiring further information, either by mail or personal interview, it is noted that all such requests will be handled by the Industrial Development Department, Nickel Plate Road, Terminal Tower, Cleveland 1, Ohio.

Labor Leaders "Decide" to Delay Security Bill

The railroad labor organizations, as the December 9 issue of "Labor" puts it, "have decided to postpone until the opening of the new Congress action on pending amendments to liberalize the Railroad Retirement and Railroad Unemployment Insurance Acts." As noted in the Railway Age of September 2, page 385, labor leaders' "high gear" drive to push this proposed legislation (H.R. 4805) through in the present session was stalled when the House committee on interstate and foreign commerce voted on August 30 not to resume hearings which were suspended after May and June sessions at which Chairman Murray W. Latimer of the Railroad Retirement Board explained provisions of the bill.

H.R. 4805, as now written, is a proposed Railroad Social Insurance Act, which would embody the retirement and unemployment insurance acts and the liberalizing amendments. This codification plan will now be dropped, according to "Labor." Only the liberalizing amendments will be included in the shorter bill now being prepared for introduction in the new Congress.

Freight Car Loading

Loadings of revenue freight for the week ended December 9 totaled 793,554 cars, the Association of American Railroads announced on December 14. This was a decrease of 14,706 cars, or 1.8 per cent below the preceding week, a decrease of 29,757 cars, or 3.6 per cent below the corresponding week last year, but an increase

of 49,371 cars, or 6.6 per cent above the comparable 1940 week.

Loading of revenue freight for the week ended December 2 totaled 808,260 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week	Ended Sat	urday, Dece	mber 2
District	1944	1943	1942
Eastern Allegheny Pocahontas Southern Northwestern Central Western Southwestern	157,077 177,732 52,463 120,664 89,409 135,794 75,121	165,129 184,475 58,929 127,251 113,538 135,223 78,188	143,232 159,687 51,864 116,342 88,017 126,573 74,016
Total Western Districts	300,324	326,949	288,606
Total All Roads	808,260	862,733	759,731
Commodities Grain and grain products Live stock Coal Coke Forest products Ore Merchandise I.c.l. Miscellaneous	47,694 22,629 169,952 13,381 38,738 13,589 105,905 396,372	56,351 19,750 185,816 15,155 46,044 40,743 105,958 392,916	44,278 18,313 161,451 14,250 39,061 26,223 89,151 367,004
December 2 November 25 November 18 November 11 November 4	808,260 768,730 864,373 839,489 893,333	862,733 819,832 882,287 847,972 754,739	759,731 743,464 836,762 826,695 829,663

Cumulative Total,

49 Weeks .. 41,194,097 40,194,452 40,747,748

In Canada.—Carloadings for the week ended December 2 totaled 72,365 cars compared with 77,578 for the previous week and 73,693 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada	Total Cars Loaded	Total Car Rec'd from Connection
Dec. 2, 1944 Nov. 25, 1944 Nov. 18, 1944 Dec. 4, 1943		38,034 39,423 40,005 43,137
Cumulative Totals for	Canada	
Dec. 2, 1944 Dec. 4, 1943 Dec. 5, 1942	3,216,969	1,847,790 1,926,155 1,633,444

Highway Bill Passed

Congressional action on the post-war highway bill (S. 2105) was completed this week when the Senate and House adopted the conference report on the measure. The

final version would authorize appropriations totaling \$1,500,000,000 to become available at the rate of \$500,000,000 a year for the first three post-war fiscal years.

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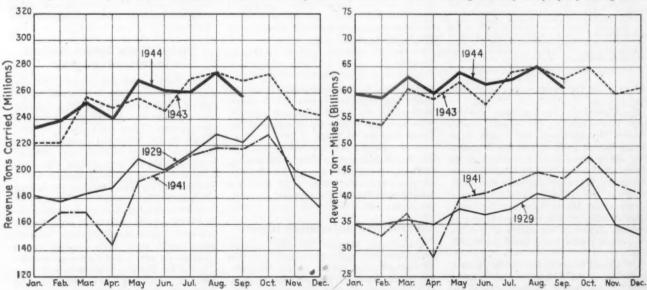
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This follows the House version, the Senate having called for expenditures totaling \$1,350,000,000 to become available at the rate of \$450,000,000 a year. With respect to the liability of railroads for part of the cost of grade-crossing projects, the final version has a substitute for the Senate bill's provision which would have required the carriers to pay not less than 15 per cent.

Deferred Liabilities .- The substitute makes a railroad involved "liable to the United States for a sum bearing the same ratio to the net benefit received by such railway from such project that the federal funds expended on such project bear to the total cost of such project." The amount which can be assessed against any road is limited to 10 per cent of the total cost of the project involved; and under that ceiling the net benefit to the railroad is deemed "to be the amount by which the reasonable value of the total benefits received by it from such project exceeds the amount paid by it (including the reasonable value of any property rights contributed by it) toward the cost of such project."

The liability of any railroad may be discharged by paying to the United States within six months after completion of the project the amount due as determined by the commissioner of public roads with the advice of the state highway department involved. If the railroad fails to pay, the commissioner is directed to request the attorney general to institute court proceedings for recovery of the amount involved. As the statement of the conferees pointed out, the foregoing provides that any crossing project "may be proceeded with and constructed, whether or not the railways have agreed to pay any part of the cost, and that a share of the costs will be subsequently collected from the railway.

Other provisions relating to grade crossing projects permit the entire cost of such projects to be paid from federal funds, "except that not more than 50 per cent of the right-of-way and property damage costs



Revenue Tons and Revenue Ton-Miles-1944 Compared with 1929, 1941 and 1943

paid from public funds on any such project may be paid from federal funds." There is also the proviso stipulating that not more than 10 per cent of the federal highway funds apportioned to any state may be used for railway crossing projects.

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Authorizes Half a Billion Yearly. The \$500,000,000 which the bill would make available for each of the first three post-war years includes \$225,000,000 for projects on the federal aid highway system; \$150,000,000 for projects on secondary and feeder roads; and \$125,000,000 for projects on federal-aid highway systems in urban areas. Provision is also made for the designation of a "National System of Interstate Highways," not exceeding 40,000 miles in length "so located as to connect . . . the principal metropolitan areas, cities, and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico."

The routes are to be selected by joint action of state highway departments, and all highways selected and approved will be brought into the federal-aid system, "without regard to any mileage limitation," if they are not already in.

Southwest Lines Sue Eastern Roads over Rate Division

Hearings were opened in St. Louis, Mo., on December 12 before the Federal District Court in a suit brought by three southwestern railroads against three eastern railroads alleging that the latter lines are not assuming a correct proportion of land-grant rate reductions on government shipments. The claims involved represent several million dollars. The southwestern lines are the Missouri Pacific, the St. Louis Southwestern and the St. Louis-San Francisco. The eastern lines are the Baltimore & Ohio, the New York Central and the Pennsylvania.

Says Southern Pacific Got Too Much for Ships

In making its 1941 purchase of 10 Morgan-Line vessels from the Southern Pacific Company, the United States Maritime Commission paid prices which "considerably exceeded their fair market value," according to a report made to the House of Representatives last week by its committee on merchant marine and fisheries. The report submitted by Representative Bonner, Democrat of North Carolina, was pursuant to House Resolution 52 which authorized the committee to continue its study of the national defense program insofar as it relates to matters coming within the committee's jurisdiction.

The 10 vessels were purchased for a total of \$4,733,952 or \$71.09 per dead-weight ton, and the report sets up the cost of repairs and of making the vessels suitable for offshore voyages at \$2,653,611.04. Thus the total cost to the government is put at \$7,-387,563.04 or \$110.94 per dead-weight ton. The report asserts that prior to the sale to the government, the S. P. had since October, 1939, "repeatedly made unsuccessful attempts to sell its entire fleet which then consisted of 13 vessels, placing a minimum price of \$60 per dead-weight ton on these 10 vessels."

It goes on to criticize the Maritime Commission for buying the vessels instead of requisitioning them; and for its alleged failure to obtain more information as to their condition. Also, the report criticizes the S. P. representation in the Interstate Commerce Commission proceeding wherein it obtained a certificate authorizing resumption of the steamship operations after the war. That presentation was found to include evidence designed to show that the sale of the vessels to the government was 'involuntary in nature," whereas evidence before the committee makes such testimony appear "incorrect." The committee has forwarded a transcript of its hearings to the I. C. C. "for its consideration."

October Accident Statistics

The Interstate Commerce Commission on December 9 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for October and this year's first ten months. The compilation, which is subject to revision, follows:

	Month of October		10 months ended with October	
Item	1944	1943	1944	1943
Number of train ac- cidents* Number of casualties in train, train-	1,304	1,285	13,446	13,443
service and non- train accidents: Trespassers:				
Killed	143	123	1,313	1,505
Injured	106	107	996	1,178
Passengers				
on trains:				
(a) In train ac-				
cidents*			111	121
Killed	127	205	1,415	131
Injured	127	205	1,413	1,912
(b) Intrain- service ac-				
cidents				
Killed	2	3	48	43
Injured	209	217	2,375	
Travelers not on				
trains:				
Killed		1	9	10
Injured	94	92	859	916
Employees on duty:	0.4	0.0	015	000
Killed	84		815	
Injured	3,960	4,002	38,970	37,017
All other nontres-	*			
passers:** Killed	182	- 185	1.566	1,556
Injured	644	620		
Total-All classes	0	0=0	0,.00	.,
of persons:				
Killed	411	393	3,862	
Injured	5,140	5,243	50,047	49,582

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than \$150 to railway property.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

156 405

Can Forwarders and Trucks Join in Line-Haul Rates?

The Interstate Commerce Commission has received from Special Examiners W. V. Hardie and Walter T. Hayes a proposed report recommending a finding that the provisions of sections 216 (c) and 217 (a) of the Interstate Commerce Act, which prohibit the establishment of joint rates between freight forwarders and truckers, are not, insofar as line-haul rates are concerned, temporarily modified or otherwise affected by the provisions of 409 (a) which have permitted forwarders to continue certain joint-rate arrangements with truckers during the specified period allowed for a change-over to the use of assembling and distribution rates published by the motor carriers.

With the issuance of the proposed report last week, the commission made public a November 13 order instituting the No. MC-C-440 proceeding in which the report was made. The proposed report was prepared on the basis of a field investigation of arrangements between Liberty Motor Freight Lines, Inc., LeGrone-Benedict Ways, Inc., and Akers Motor Lines, Inc., and Acme Fast Freight, Inc., National Carloading Corporation, and Universal Carloading & Distributing Company. As the examiners pointed out, no particular rate or charge is in issue—the practices of the respondents being illustrative of the question of construction in-

In those instances where truckers perform a line-haul service for forwarders, without assembling or distribution service. the examiners advise that the law should be interpreted to deny the application of joint rates to such line-haul service. "It seems plain," they say, "that to extend the permission to maintain joint rates to the line haul service would expand the purpose of the Congress and would be in contravention to the general illegality of joint rates between forwarders and car-

The commission's order instituted the investigation for the purpose of determining whether the practices involved failed tocomply with any provisions of Part II of the act. It served the proposed report on the respondents, and ordered an oral argument, meanwhile, however, giving the parties until January 10, 1945, to ask for a hearing.

Club Meetings

The Car Department Association of St. Louis will hold its annual Christmas party December 19 at 8:00 p.m., in Hotel DeSoto. There will be a 6:30 p.m. dinner, and election of officers for the coming year.

The Northwest Locomotive Association will next meet December 18, at 8:00 p.m., in Woodruff Hall, Prior and St. Anthony Avenue, St. Paul, Minn. R. G. Webb, air brake superintendent, Chicago, Milwaukee, St. Paul & Pacific, will present a paper "Locomotive and Train Braking.

The Traffic Club of Philadelphia, which had scheduled its annual "Ladies Night" party for December 18, has announced that plans have been changed and the affair will not take place on that date.

The Railway Club of Pittsburgh, Pa. will meet on December 28 at 8:00 p.m., in the Fort Pitt hotel. George L. Phillips, public relations manager, will discuss "Custom Built Power-Or the Building and Operation of a Modern Locomotive.'

talk will be illustrated by pictures.
"Financing the Railroads" will be discussed by E. L. Shaw, manager, statistical department, Vilas & Hickey, brokers, when the New York division of Railroad Enthusiasts, Inc., meets in Room 5928, Grand Central terminal, at 7:45 p.m., December 20. The British-made movie, "Bundles for Britain" also will be shown.

J. Meehan is announced as the speaker for the meeting of the Car Foreman's Association of Chicago, at 8:00 p.m., January 8, in La Salle hotel. His subject will

be "Changes in A. A. R. Rules of Interchange, Effective January 1, 1945."

The Car Foreman's Association of Omaha, Council Bluffs and South Omaha Interchange will meet at 1:30 p.m., January 13, in the Chicago, St. Paul, Minneapolis & Omaha freight house, in Omaha, Neb.

Class "A" Passengers Shifting to Airlines

(Continued from page 933)

sonnel and essential civilian war workers."

Air Line "Share" Rises.—Passenger revenues of the air lines in 1943 were \$86,000,000 or 353.9 per cent of the \$24,300,000 reported for 1938. Meanwhile, Pullman passenger revenues were up 271 per cent; railroad revenues from parlor and sleeping car passengers, up 339 per cent; and combined air line, Pullman, and rail (parlor and sleeping car) revenues, up 326.2 per cent. In 1938 the air lines had 9.69 per cent of the combined revenues; they had 20.35 per cent in 1941; and 10.63 per cent in the first six months of 1944.

Commenting on railroad operating results for October, the Bureau noted that the increase in freight revenue over October, 1943, (2.9 per cent) was "somewhat lower" than the corresponding percentage for the year's first 10 months (3.8 per cent). However, the October freight revenue index, based on the 1935-1939 monthly average as 100, was 235.5, "the highest since the first of the year, although the actual freight revenue in August was greater."

October's passenger revenue was one per cent above October, 1943, and, except for August, the lowest percentage increase this year. The index of passenger revenue was 431.8 in October which was higher than for January, February, March, and May but lower than for other 1944 months.

How Net Is Falling.—How the ratio of net income to net railway operating income for successive 12 months' periods has "steadily declined" since the first of the year is shown in one of the statement's tables. The ratio was 63.9 per cent for the 12 months ended with January, 61.4 per cent for the 12 months ended with June, and 59.1 per cent for the 12 months ended with October. For the latter period the net income (partly estimated) after deduction of federal income taxes was \$652,537,000, compared with \$668,663,000 for the 12 months ended with September.

The analysis of current assets and liabilities shows that as of September 30, the railroads had cash and temporary cash investments of \$2,890,318,851, an increase of 8.3 per cent over the September 30, 1943, figure. Accrued tax liabilities at \$1,793,277,658 were up 11.1 per cent. The ratio of current assets to current liabilities has remained between 1.51 and 1.6 since the first of the year. The funded debt of Class I roads reported as maturing within the six months following September 30 amounts to \$267,469,901. The maturities of seven roads, accounting for \$216,177,334 of the total, range from the Western Pacific's \$9,546,140 to the Baltimore & Ohio's \$74,878,965.

Accident Uptrend Arrested?—In a review of train accident figures since 1938,

the Bureau noted "a discomforting upward trend" through 1943. When it turned to the figures for the current year, however, it observed that "unless the level changes considerably in the last three months, it is reasonable to expect that the complete record for the year 1944 may show that not only has the rate of increase been arrested but that the record is slightly better than 1943 regardless of the bases used." For the first nine months, there was a decrease of 0.18 per cent in the number of train accidents compared with the same period of 1943, and the number per million motive power miles (8.9) was one per cent below the 1943 rate for the period.

How the war has brought "some measure of relief" to electric railways reporting to the I. C. C. is shown in a review of the 1943 reports of those roads. Last year's net income for the group was \$7,855,277, as compared with \$4,296,192 in 1942 and deficits for every other year back to 1934. Even in 1943, however, 28 of the 81 reporting lines had deficits; while the largest net income (\$5,602,315) was reported by the Pacific Electric.

"Other Compensation."—The comment on railway employees calls attention to the increase in recent years in the amount of "other compensation" paid to all employees of Class I roads. It is explained that for nonoperating employees, "other compensation" represents payments for time "not actually worked," such as payments for holidays, absence on definite leave, vacations, etc.; for train and engine service employees it covers constructive time allowed which does not represent actual train service and for which mileage is not allowed, such as pay under "held away from home terminal" rule, called and not used, deadheading, etc.

In 1940, the "other compensation" amounted to \$39,124,737 or 1.99 per cent of total compensation. In 1943, it amounted to \$101,166,999 or 2.87 per cent; and in the first nine months of this year it amounted to \$93,891,736 or 3.26 per cent. The Bureau predicts that the figure for the full year 1944 "probably will be about three times that reported for 1940." It explains that the higher percentages for the past three years are primarily the result of paid vacations granted in the 1941 and 1943 wage

Burlington Makes Plans for Rehiring Service Men

Sincere and extended efforts will be made by the Chicago, Burlington & Quincy to provide employment for former employees when they return from military service under a plan formulated by the railroad. Paramount in the program is the belief that previous railway experience together with that gained in military service will create a more valuable employee and that efforts should be made to place him in a position that is in keeping with his broadened outlook and capabilities. Under the plan, a former employee will be returned to the position he left provided he has an honorable discharge certificate, is qualified to perform the duties of that particular job, applies for the position within 48 hr. after his discharge and provided circumstances on the railroad have not changed so as to make the return

to the former position impossible. At the same time, the railroad will endeavor to re-employ in other capacities those not able to perform the duties of their former positions and will entertain requests of returning former employees for transfer to other departments.

In departments where seniority is in effect, the returning employee will retain the seniority acquired at the time of entering military service while in departments having no seniority arrangement, he will be given his former position, the older employee of two or more returning being given priority.

To carry out the program, a permanent supervisory and policy committee has been created consisting of representatives from the executive, operating, law, traffic, accounting and personnel departments. This committee will work with all hiring supervisors—about 2,000 at 1,000 fixed work locations—to make certain all efforts to provide employment for former employees have been exhausted.

Special attention will be given employees with physical impairment and as a preliminary measure a survey is being conducted to determine which positions can be handled by those handicapped. A former personnel officer now serving as an army personnel officer will be assigned, upon his discharge, to give special attention to cases that will require special handling.

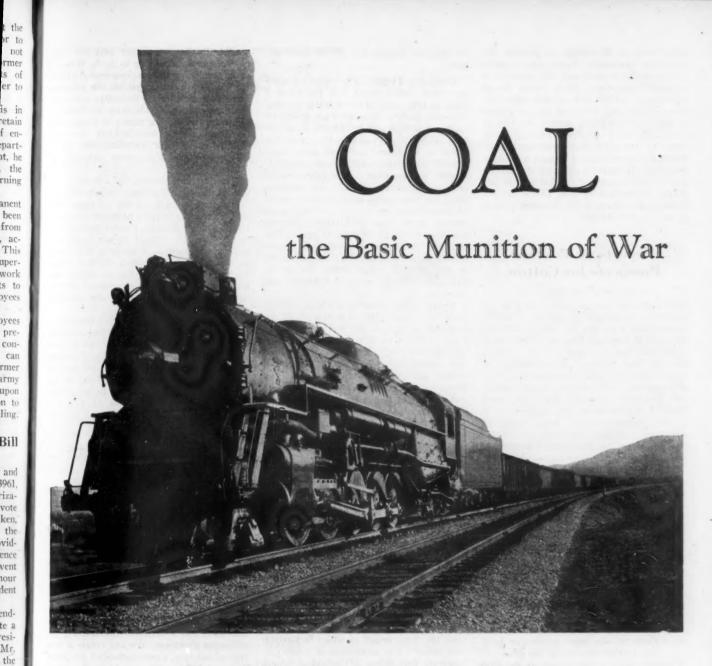
St. Lawrence Out as Rivers Bill Passes Senate

The Senate on December 12 passed and sent to conference its version of H. R. 3961, the omnibus rivers and harbors authorizations bill, after defeating by a 56 to 25 vote the amendment proposed by Senator Aiken, Republican of Vermont, to approve the United States-Canadian agreement providing for construction of the St. Lawrence seaway. The St. Lawrence project went down to defeat despite the eleventh-hour assist given to Mr. Aiken by President Roosevelt.

Shortly before the vote on the amendment, Senator Aiken read to the Senate a telegram he had received from the President in response to his inquiry as to Mr. Roosevelt's attitude toward approval of the agreement at this time. The President's telegram read: "Of course, I want action as soon as possible on St. Lawrence seaway. It is logical and inevitable. The quicker the better." The adverse vote came after lengthy debate extending over several Senate sessions.

Other "Improvements" Ditched.—As noted in the Railway Age of December 9, page 899, the Senate had previously knocked out the \$66,000,000 Tennessee-Tombigbee project, and the provision which would have authorized the expenditure of an additional \$1,500,000 on the Beaver-Mahoning project for which previous rivers and harbors bills had authorized the expenditure of \$37,000,000. Tombigbee got its foot back into the door, however, with the adoption of an amendment adding it to the list of projects with respect to which the Secretary of War would be directed to make "preliminary examinations and surveys."

Meanwhile, the Senate rejected the amendment proposed by Senator Robertson,



The availability of enormous quantities of coal for our wartime activities is a vital factor in our success in the war.

A vast amount of this coal is moved over C. & O. lines, where all previous traffic records have been broken. Forty 2-10-4 super-power Lima locomotives, capable of regularly handling trains of 160 loaded coal cars, are taking an important part in moving this tremendous volume of traffic.

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Republican of Wyoming, to provide for Interstate Commerce Commission reports on the public convenience and necessity of proposed waterways. As it finally passed the Senate the bill still carried authorizations for projects estimated to cost a total of nearly a half-billion dollars, the loss of Tombigbee and Beaver-Mahoning being offset by the adoption of numerous amendments adding projects of interest to various Senators. Differences between the Senate and House versions of the bill will be adjusted in conference. The House version would authorize projects estimated to cost a total of \$361,000,000.

Reports on Postwar **Prospects for Cotton**

(Continued from page 934)

points out that the country cannot go on producing an annual average of 12,800,000 bales unless ways can be found to increase the annual average domestic consumption (6,800,000 bales in the 1935-39 period), or else find increased export outlets to absorb the difference. Otherwise the carryover problem will return to exert a pressure that will eventually break the price or lead to government intervention.

It is recognized that exports could be expanded, despite increased production abroad, either by government subsidy of exports or by producing cotton at a price which will permit it to compete in world markets. The former is called an "economically unsound" expedient, so the report notes with approval indications that the South is on the way toward achievement of the second method.

Growing Costs Being Cut-"Among these indications," it continues, "are the decrease in number of farms and in cotton acreage, coupled with increasing use of fertilizer and a marked increase in yield per acre. The southern cotton grower seems to be learning how to produce cotton more cheaply. He has . . . concentrated his efforts on the more productive land. . . . One further step along this line . is suggested by a comparison of the 1940 average yield of 740 pounds per acre in California with the average yields of 576 pounds in New Mexico, 375 pounds in South Carolina, 240 pounds in Mississippi, 184 pounds in Texas, and 253 pounds for the cotton states as a whole. There seems to be no good reason why what has been accomplished in California could not be paralleled in other states by the same methods as in California, and probably at cheaper cost."

Mention is also made of possible new outlets for cotton which are being sought by agencies representing the industry. In this connection the report offers the idea of promoting the use of cotton fabric for packaging the cotton-crop itself. Previously it had been pointed out that most American bales are covered with burlap bagging, and that they are "poorly covered and unattractive" as compared with foreign bales which are "usually neat and attractive, as well as adequately protected." It is estimated that use of cotton fabric for packaging would create an additional outlet

for between 100,000 and 200,000 bales anmually.

Corollary Traffic-The report's chapter on cotton linters noted that the Class I roads in 1942 received \$5,900,000 in revenue from this traffic. Also, they got \$1,450,000 from cotton seed and \$19,900,000 from cotton fabrics in carloads, n.o.s. The last figure, it is pointed out, represents "only a small part of the total revenue from this source, because most cotton fabrics move in less-than-carload lots." In addition, there are transported annually from points of manufacture to cotton gins and compresses, based upon a 12,000,000-bale cotton crop, about 54,000 tons of steel baling ties and 78,000 tons of bagging for covering the bales. Commercial fertilizer moved to and used on cotton farms during the five years 1938-42 averaged 1,490,000 tons per year.

Among other matters which the report finds "of considerable significance to the railroads" is the decline in cotton acreage from 47,000,000 in 1926 to about 22,000,000 in 1941 and 1942. It asks what has been done with this land diverted from cotton adding that land not used or used below its maximum efficiency "is a community waste and challenges the railroads concerned to help find ways to make it more productive.' Like comment is made with respect to the people who formerly found employment on the 25,000,000 acres which have been diverted from cotton.

Transport Planes Allocated to Air Lines

The first 20 twin-engined transport aircraft, declared surplus by the Army last week, have been allocated to domestic airlines, "thus alleviating the serious transportation bottleneck in this country," according to a December 8 announcement from the Surplus War Property Administration. The allocations (in lots of one to five) to 10 airlines were made upon recommendation of the Civil Aeronautics Board.

All 20 planes are of the Douglas DC-3 type, the "type price" of which is \$100,000 (ex radio). The announcement points out, however, that prices of individual planes "will usually reflect substantial allowances for cost of conversion and repair, which will be deducted from the type price."

Air-Cargo Service Has Limits

An optimistic outlook for post-war aircargo transportation, but with recognition of its limitations, characterized the air-cargo meeting of the Society of Automotive Engineers at Chicago on December 4-6. William B. Stout, president of Stout Research Laboratories, who spoke on Imagineering on Post-War Cargo Planes, was of the opinion that air lines should be able to equal or better railroad rates on merchandise requiring special handling but will not be able to compete on a large part of the freight handled by the railroads. He predicted a large air business in perishables and special luxury items. He forecast a large increase in private owner flying with production of this type of plane reaching a minimum of 100 planes a day within five years after

A thousand loads of air-cargo a day is

possible in the near future with the right type of plane, according to J. A. Wooten, cargo traffic manager of American Airlines, Inc. With present equipment, the potential market for air cargo is limited to new commodities and it is ridiculous to think of competing with other forms of transportation because of the high level of rates that must be charged for operation with poorly designed equipment for cargo carriage, he

"Our accomplishment will definitely be limited unless we can drastically reduce our rates," he continued. "I am not suggesting that we reduce our rates to levels of surface transportation because I don't believe that can be done, but even if we are to develop any serious amounts of traffic in new fields, we must have lower rates. So you define for me the characteristics of future air freight shipments by developing the specifications for the most economically operated

equipment.

"If you can get lower costs, in direct proportion to the increase in specific densities, stop at 20 lb. per cu. ft. and let's try the field at this level. If we can offer the public a rate of 15 cents a ton-mile then we can describe for you the characteristics of an air freight shipment. Some of those characteristics he enumerated as follows:

A specific density that would average, at least from a rate standpoint, 20 lb. per cu. ft.

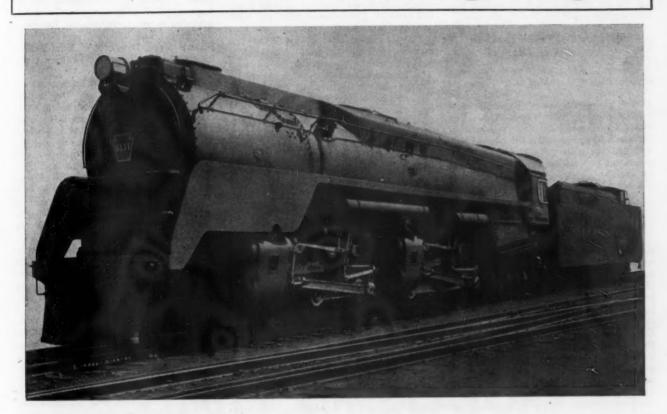
A value at origin that would not average in excess of 50 cents a pound.

Commodities that would be easily stowed, with an average volume per shipment, in less than planeload quantities, of 250 lb., with an average volume per shipment in planeload quantities of olume per to 5 tons.

"We can then do tricks with manufactured merchandise in addition to style merchandise at 15 cents a ton-mile. On many items it is possible to move the plant away from the consuming centers, such as New York and Chicago, and put the plant on top of the source of basic material. Through the use of air transportation we can serve the United States as a market satisfactorily from a given point. Peace-time economy proved that the average consumer makes the purchase one day, in the morning or afternoon, and is satisfied with delivery the following afternoon. We can create a new type of industry, a new method of merchandising, possibly even supplying the retail outlet direct from the manufacturer, permitting the retail outlet to merchandise on what would today be called sample stocks, drawing upon air transportation for daily replacement. This can be done at 40 cents a ton-mile for some few new commodities."

The advantages of air-cargo transportation, as compared to ground transportation, will not be great enough to operate at distances much shorter than 500 mi., Robert J. Nebesar, vice-president and chief engineer of Universal Moulded Products Corporation asserted in discussing the efficiencies of Cargo Airplane Designs. "For example," he said, "for a distance of 150 mi., approximately 4 hr. will be required for truck service, this including pickup and delivery. For an airplane, 34 hr. will be required for flying, and approximately 2 hr. ground handling time, this including the time required for pickup and transfer of cargo between the service truck and airplane at point of departure, and unloading and delivery time at the point of destination. Therefore, the time required for airplane

Pennsylvania Railroad's ... New Fast Freight Engine



This Wartime Giant, P.R.R. Class Q-2, with its tender, built by the Pennsylvania Railroad, tips the scales at more than a million pounds. Overall length of the locomotive and tender is 124 feet 7 inches; its height

is 16 feet 5 inches. The engine develops starting tractive effort (pull exerted on a standing train) of 114,860 pounds. High pulling power is maintained up to 70 miles an hour.

These Locomotives are equipped with the new TYPE E Locomotive Boosters.*

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service will be 234 hr. The difference between the two means of transportation would be only 1½ hr. For twice the distance, the time required would still be only overnight travel of a truck, so that delivery of the goods by either method of transportation could be made early in the morning. It is therefore only at distances approximating 500 mi. that a substantial portion of a working day would be saved by airplane."

Milwaukee Tells How to Avoid War Jitters

In an effort to impress upon employees the importance of making friends now for the future, the Chicago, Milwaukee, St. Paul & Pacific has sent to its employees a booklet entitled "War Jitters—Have You Got Them?", which through cartoon illustrations offers suggestions for conduct that will preserve good will. The booklet also points out that job security can be insured by creating public opinion now that will aid later in the post-war fight for traffic.

Southeastern Board Warns Against Complacency

That the war is by no means over and that complacency of either shippers or railway men is dangerous and out of place, was the theme of the 69th regular meeting of the Southeast Shippers Advisory Board, heid at the St. Charles Hotel, New Orleans, La., on December 7. The meeting was presided over by General Chairman J. J. Kornfeld, traffic manager, New Orleans Public Service Company, and it was devoted largely to a review of the activities of the southeastern shippers and railway men during the three years since Pearl Harbor.

Each of the commodity chairmen representing the shippers and a representative of each of the 24 trunk and short lines serving the Southeast delivered reports on the accomplishments of their industries or their railways since war began. In view of the fact that the Southeast has had a disproportionate number of military camps and other installations in its territory, there were many accomplishments on which the speakers could congratulate themselves, but the eyer-recurring note was that any feeling of self-satisfaction must be subordinated to continued and enhanced efforts until the war is won.

All of the speakers stressed the unusual nature of the burdens borne in the Southeast, where, according to C. A. Barinowski, sales manager, Birmingham Slag Company, Birmingham, Ala., 42 per cent of the nation's total war construction activities has taken place since 1941. The peculiar problems inherent to war transportation in the Southeast were stressed by T. M. Healy, district manager, A. A. R., Atlanta, Ga., and the nation's transportation problems were outlined by W. E. Callahan, manager, Tank Car section, Car Service division, A. A. R. All of the railway representatives reported huge traffic increases handled with only sporadic and local tight situations in the last three years.

Loadings Decline Foreseen.—The various commodity committees, in a combined report, estimated that car loadings in the Southeast would be 931,321 in the first quarter of 1945, as compared with 950,800

loaded in the comparable quarter of 1944, a decrease of two per cent. The principal decreases were in building materials; the estimate being that 2,712 fewer cars of cement, 5,184 cars of crushed stone, sand, gravel and slag and 21,296 cars of lumber will be loaded next year than this. On the other hand, 18,889 more cars of coal and coke will be loaded, 3,846 cars of pulp, paper and products, 2,491 cars of flour, and 1,460 cars of citrus fruits.

The luncheon was in honor of the numerous executives of railways and industrial companies who attended the meeting. The luncheon address was delivered by Charles Layng, western editor, Railway Age, who has been assisting the government ever since Pearl Harbor because of his knowledge of Axis railways gained on the ground, both in Europe and the Orient. He pointed out the important part that transportation plays in the conduct of war and cited numerous examples of how effective transportation-or the lack thereof-has turned the tide of battle on many occasions. He, too, warned the shippers against complacency and stated that, since American flyers are daily giving their lives to hamper Axis transportation, it is surely not too much to expect that American shippers and railway men will do their utmost to improve American transportation.

Labor Chiefs to Study Post-War Conditions

The Railway Labor Executives Association has appointed a special committee on post-war planning which will study and make recommendations on post-war employment, compensation, taxation and other matters. The committee consists of George M. Harrison, grand president of the Brotherhood of Clerks, E. E. Milliman, president of the Brotherhood of Maintenance of Way Employees; H. W. Fraser, president of the Order of Railway Conductors; and J. G. Luhrsen, executive secretary of the Association.



Recent Office of Defense Transportation Poster Which Is Directed at Civilian Travelers Whose Trips Do Not Contribute to the War Effort

Would Improve, Not Weaken, the Railway Mail Service

Advantages of railway mail service over air mail service in the post-war period, when there will be "a public clamor for a businesslike operation of the postal service as regards to cost," were set forth in a report prepared by a committee of the Railroad Mail Association and recently published in the Congressional Record at the request and with the approbation of Senator Mead, Democrat of New York, a member of the Senate committee on post offices and post roads.

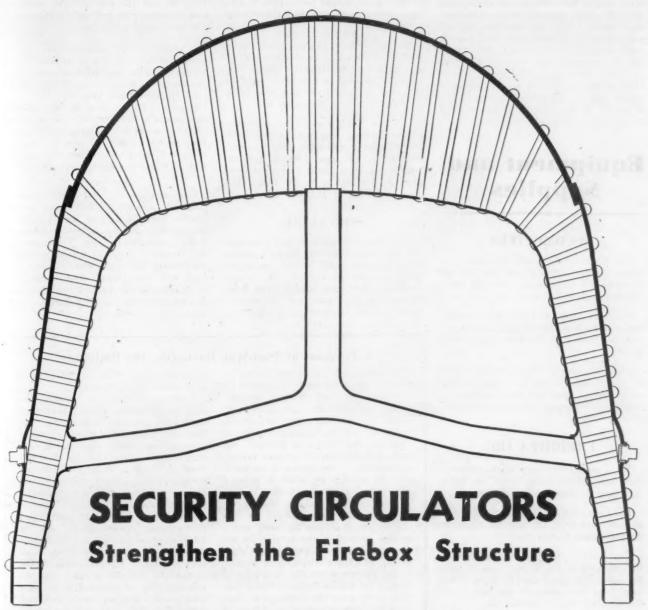
Mail is distributed while en route by rail, the report pointed out, but it must be set down en route or delayed at destination for distribution when it is carried by air. "Railroad service is dependable and co-ordinated, and regular connections with star routes, highway post office, and railway post offices are maintained. . . . The best record of performance of trips completed by air line companies is 89.29 per cent, leaving nearly 11 per cent of trips uncompleted. Such a record falls far short of being good enough for an efficient postal service."

Railroads should not be held to regulations that do not apply to air lines, the committee declared, and important trains should not be handicapped by delaying them for handling all classes of mail, particularly on competitive routes, where it is possible to handle storage cars or other bulky mail movements on slower trains, reserving the first-class trains for first-class mail.

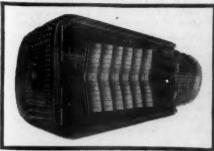
"If the railroads inaugurate fast, reliable service, insuring connections at terminals, with adequate facilities for distribution en route, we believe the public will be given a highly superior service at no additional cost," the committee said "Where speed in transportation and delivery of mail is imperative and in the judgment of the patrons of the mail service it is worth the additional cost of air mail service and special delivery, both of these services will be available as at present." How-ever, it pointed out, "claims of some air mail enthusiasts that all first-class mail should be transported by air at present rates of postage are fantastic for the reason that an enormous financial deficit would follow." While it may be true that some reduction in air mail postage rates could be made without incurring a deficit, "the same may also be said of ordinary first-class mail transported by rail. The [Post Office] Department has always made a substantial profit on ordinary first-class mail (\$140,-000,000 in 1942), and this profit has always been used to counteract the loss incurred on other classes of mail." Before there is a reduction in air mail postage rates, firstclass air mail should be made to bear a portion of the deficit incurred in handling other classes of mail, the committee suggested.

I. C. Suggestion System Inspires 116,469 Ideas

A total of 116,469 suggestions have been submitted by employees of the Illinois Central under its Employees Suggestion System during the 5 yrs. and 34 wks. of its existence. Of these, 17,232 or 14.7 per cent



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were adopted with cash awards aggregating \$185,189. Each year has shown an increase in the number of suggestions submitted and adopted and in the amount of cash awards. Suggestions received averaged 381 a week for the first five years while for the sixth year they have averaged 512 a week. Adoptions during the first five years averaged 51 and in the sixth year have averaged 110. Thus far in the sixth year, 21.4 per cent of the submissions have been adopted.

Equipment and Supplies

LOCOMOTIVES

The CHICAGO & NORTH WESTERN has ordered seven 1,000-hp. and ten 660-hp. Diesel-electric locomotives from the Baldwin Locomotive Works.

The Kentucky & Indiana Terminal has ordered two 1,000-hp. switching locomotives from the Baldwin Locomotive Works.

The Chicago, St. Paul, Minneapolis & Omaha has ordered two 1,000-hp. and three 660-hp. Diesel-electric switching locomotives from the Baldwin Locomotive Works.

FREIGHT CARS

The Carnegie-Illinois Steel Corporation has ordered eight 50-ton air dump cars from the Austin-Western Company.

The Celanese Corporation has ordered 20 tank cars from the General American Transportation Corporation.

The CENTRAL OF GEORGIA has ordered 100 pulpwood cars of 50 tons' capacity from the Greenville Steel Car Company. The inquiry for this equipment was reported in the Railway Age of October 21.

The ERIE has ordered 500 box cars of 50 tons' capacity from the American Car and Foundry Company. The inquiry for this equipment was reported in the Railway Age of December 2.

The Mogyana Railway of Brazil has ordered 150 40½-ft. 36-metric-ton metergage box cars from the Pressed Steel Car Company. The railroad was reported seeking this equipment in the Railway Age of September 2.

The SOROCABANA RAILWAY OF BRAZIL has ordered 1,000 40½-ft. 36-metric-ton box cars from the Pressed Steel Car Company. The railroad was reported inquiring for 500 box cars in the Railway Age of September 2.

The Ferrocarril De Antioquia, Colombia, has ordered 48 gondola cars of 77,100 lb. capacity and 40 flat cars of 30,000 lb. capacity from the American Car & Foundry Co. The inquiry for this equipment was reported in the *Railway Age* of October 21. The railroad also placed an order

for four steam freight locomotives of 2-8-2 wheel arrangement with the Baldwin Locomotive Works.

The New York Central has ordered 1,000 steel high-side gondola cars of 70 tons' capacity from Despatch Shops, Inc., for the Pittsburgh & Lake Erie. The inquiry for this equipment was reported in the Railway Age of November 16.

The New York Central has placed orders for 4,000 new box cars to cost \$13,000,000 for delivery by October, 1945. Despatch Shops, Inc., will build 2,000 of the cars and the American Car & Foundry Co. the other 2,000—1,000 in its St. Louis, Mo., shops and 1,000 at Madison, Iil.

SIGNALING

THE MISSOURI PACIFIC has contracted with the General Railway Signal Company for materials to install absolute permissive block signaling on the 157 mi. between VanBuren, Ark., and North Little Rock. Included in this order are 163 type D signals, 4 type L dwarf signals, 220 type

B3X-104 and 178 type BX-116 rectifiers, and the required type K relays, transformers, and factory wired cases.

The Boston & Albany has ordered equipment from the General Railway Signal Company for the installation of coded track circuits on the 10 mi. of double track steam road between West Warren, Mass., and Palmer. 17 DC track circuits are planned, the longest to be 8,366 ft. The order includes 3 model 9A outlying switch locks, 18 type SA signals, 10 type SC signals, 12 type K transformers, and the required type K relays and factory wired cases.

Orange Cabooses.—All of the Canadian National cabooses are now being painted bright orange instead of their traditional box-car red, and the railroad reports the train crews favor the idea. The reason for the change is given as greater visibility, particularly noticeable when clearing sidings with long trains. Underframes and roofs are still the standard red. Lettering and maple leaf monogram and the C. N. R. slogan are in white.

A Forecast of Post-War Buying by the Railroads

A market for the manufacturing industry with the railroads-exceeding the approximately \$1.2 billions annually which the railroads have spent with manufacturers in the past three years-is predicted for the immediate post-war vears by the editors of Railway Age and other Simmon's-Boardman railway publications. This opinion is set forth, and the grounds on which it is based analyzed, in a 100-page booklet entitled "The Post-War Railway Market for Manufacturers," being offered for free distribution to persons and firms with a serious interest in the subject, by the Simmons-Boardman Publishing Corporation, 30 Church Street, New York 7.

The editors do not in their analysis dismiss the serious threat to future railway traffic from the continued development and improvement of other types of transportation at the taxpayers' expense. They concede that the long-run effects of such competition may be seriousbut, in their opinion, it will require several years before the renewed force of this competition can come into full play. In the meantime, the railways will have both the incentive and opportunity to fortify themselves against such rivalry by judicious expenditures to improve and economize their service and otherwise to strengthen their own competitive position.

The analysis shows that the volume of purchases by the railways has for many years been largely determined by the magnitude of railway net earnings. Accepting the estimates of post-war business activity and national income of the Committee for Economic Developent, the editors conclude that both railway gross and net income in the immediate post-war years should exceed that of 1941. Under such conditions they believe that purchases should con-

siderably exceed those of 1941 (when they totaled \$1.2 billions).

Having examined the financial aspects of prospective railway purchases, the booklet proceeds to weigh the relative position of specific classes of equipment and materials. That is, out of a total annual demand for, say \$1.6 billions of products from the manufacturing industry, which particular classes of goods are likely to absorb the greater share of total expenditures? For reasons they cite, the editors conclude that the relative resourcefulness of the manufacturers themselves will largely determine the distribution of the market's patronage. The realization of their competitive situation is such that the railroads may be expected to be more than usually alert to assure that each outlay they make will yield the largest possible returns in economy and attraction to traffic.

Other chapters discuss the prospects for passenger traffic and the large market the railways promise to afford to builders of modern passenger equipment; and the application to railroad use of the hundreds of new and improved materials which the past few years of intensive industrial progress have developed.

The booklet closes with an appendix which gives the principal statistics on which the conclusions in the text are based. Purchases by the railways of some of the major items are tabulated over a number of years, in some instances as far back as World War I. The appendix also gives a complete list of the names of the railroads' comprehensive research organization, known as the Railroad Committee for the Study of Transportation, and its various subcommittees—the first time that this list has ever been published.



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Montreel, Conada THE SUPERHEATER COMPANY, LTD.

Supply Trade

The Wheeling, W. Va., plant of the Wheeling Corrugating Company has been awarded its fourth Army-Navy "E."

On December 11, the Bayonne, N. J., works of the Babcock & Wilcox Co. was awarded the Army-Navy "E" for outstanding performance on war work.

The Warren Tool Corporation has moved its general sales office from Warren, Ohio, to 2119 Bankers Building, 105 West Adams Street, Chicago 3, Ill.

^e J. J. Buhler, for many years field engineer in the northwest for the Plomb Tool Company, has been promoted to the position of northwestern regional director with headquarters in Seattle, Wash.

Goodrich K. Murphy has been appointed district sales manager for the Edward G. Budd Manufacturing Company. He will make his headquarters in the company's New York offices, working with Fitzwilliam Sargent, regional sales manager in New York, and Samuel M. Felton, general sales manager of the railway sales department at Philadelphia, Pa. Mr. Murphy was graduated from Yale University. He formerly was associated with the Matson Navigation Company, where he



Goodrich K. Murphy

was assistant to the vice-president. Prior to his employment with Matson, he was with the New York, New Haven and Hartford for ten years holding successively the positions of assistant to the passenger traffic manager, assistant passenger traffic manager, and assistant to the general manager. Before joining the New Haven, he was with the American Airlines, Inc., for six years until 1934, at which time he was eastern division traffic manager.

When they return to civilian status, men and women in the armed services formerly employed by the Ilg Electric Ventilating Company of Chicago will get a bigger share in the profits of the company as well as their old jobs. Under the Ilg profitsharing program originated in 1907, each worker's earnings are considered his investment in the company, and the per-

centage paid is determined by the directors at the annual meeting. An extra bonus for length of service is also paid. Starting at 5 per cent of the regular bonus, this is annually increased by 5 per cent until the extra bonus amounts to 50 per cent of the bonus paid on annual earnings. The Ilg Welfare Club, which also functions as a labor-management committee, has ruled that Ilg war veterans will continue to gain in seniority rights as applied to the extra bonus.

Edward L. Pincus, formerly chief field expediter for the Philco Corporation, has been appointed district sales manager, middle Atlantic states, for the Galvin Manufacturing Corporation, with headquarters in Philadelphia, Pa.

William J. Roehl, Inc., St. Louis, Mo., have been appointed freight car sales agents in the St. Louis district for the Mount Vernon Car Manufacturing Company, a division of the H. K. Porter Company of Pittsburgh, Pa. William J. Roehl, Inc., have been in the railway supply business since 1921, representing railway supplies in the St. Louis territory and to the southwest.

TRADE PUBLICATIONS

The Republic Steel Corporation has released a hundred-page book entitled "Republic Goes to War," setting forth the company's service record in the war. The book points out that, at the request of the War Production Board, the Reconstruction Finance Corporation and other governmental agencies, Republic has undertaken fortytwo Defense Plant Corporation projects with a total cost of more than \$200,000,000. Republic's steel production almost doubled between 1939 and 1943, totaling 4,817,000 tons in the first year, and 8,651,000 tons in the latter year. Electric furnace steel production leaped from 112,441 tons in 1939 to 1,085,000 tons in 1943. The book tells how the company changed its 98-in. strip mill to a producer of steel ship plates, how it increased the output of iron ore in its Adirondack mines, and how it "mined" 390,000 tons of scrap from abandoned slag dumps. In order to maintain its production, the company reveals that it employed more than 8,000 women to replace in part more than 21,000 men who joined the armed services. The book devotes a chapter to each of the steel districts and manufacturing plants, to its mines, metallurgy, safety, personnel and finances.

Construction

Great Northern.—This road has awarded a contract, amounting to \$30,000, to M. P. Butler, Seattle, Wash., for the construction of a concrete driveway, 83-ft. wide by 1,000-ft. long, to serve team tracks at Seattle.

LOUISVILLE & NASHVILLE.—Division 4 of the Interstate Commerce Commission has authorized this company to build a 2.1-mile branch from a point near Drakesboro, Ky., to serve certain coal mines. In a previous report, the division approved the project subject to the carrier's agreement to participate with the Illinois Central in construction and operation of a joint line to serve the mines in question, but that condition has been modified, at the request of the L. & N., to make the joint line arrangement effective, if imposed at all, only on that portion of the line connecting the mines. The project is to be completed by June 30, 1945.

Abandonments

CHICAGO, BURLINGTON & QUINCY .- Objecting to this road's request that the en-Interstate Commerce Commission should take under consideration the imposition by Division 4 of certain conditions for the protection of employees who may be affected by the abandonment of a line in Missouri and Iowa (noted in Railway Age of December 9, page 904), the Railway Labor Executives Association and the Brotherhood of Maintenance of Way Employees have filed an answer to the carrier's petition in which they argue that the record supported the division's action and that the commission has authority as a matter of law to impose such conditions. "If no adverse effects appear," they contended, the railroad "is deprived of no property. If adverse effects do appear, and payments must be made, then the necessity for protection is established."

The proposal that the commission should, as in the past, retain jurisdiction with respect to the protection of employees the unions termed "not a solution of the problem but a mere postponement of any consideration of it." Such action, they said, would amount to a return to a policy which the commission has tried and rejected, both because it is "inconclusive," and because it involves "tremendous" administrative difficulties. The problem of employee protection in abandonment proceedings, they argued, merits a "positive and certain" solution and elimination, as far as possible, of administrative complications.

Delta Valley & Southern.—This road has applied to the Interstate Commerce Commission for authority to abandon a portion of its line from Denwood, Ark., to Deckerville, 5.4 miles.

NASHVILLE, CHATTANOOGA & St. Louis. Division 4 of the Interstate Commerce Commission has denied this road's application for authority to abandon its line from Union City, Tenn., to Hickman, Ky., 16.57 miles. The state commissions of both states and the city of Hickman opposed the application. In a proposed report Examiner R. Romero had recommended that the abandonment be authorized (noted in Railway Age of June 24, page 1230) on the ground that continued operation would constitute an undue burden on the road. Commissioner Miller, dissenting, expressed the opinion that the record justified the abandonment, but the division majority, Commissioners Mahaffie and Rogers, held that the possibility of obtaining additional traf-



WEAR RESISTING PARTS

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SINCE 1921 the railroads have been able to reduce the unit fuel consumption for freight trains 31 per cent! It is easy to visualize what this means both from a business standpoint and in terms of the war effort. HUNT-SPILLER Air Furnace GUN IRON fights wear at one important source of fuel waste, the valves and cylinders. As one factor promoting high locomotive efficiency it shares responsibility for the roads' fuel economy record. Does your motive power benefit from full HSGI applications?

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They get it for breakfast, garnished with taunts. For lunch, seasoned with threats. For dinner, covered with verbal abuse.

Twenty thousand Americans, day after day, week after week, month after month until they are liberated, will live on this fare. Twenty thousand—and more.

But it is more than rice that they live on. For they live on dreams. Dreams of hearing, one day, the guns of the American battle squadrons drawing nearer. Dreams of hearing in the sky the thunder of American planes. Dreams of hearing in the streets the shouts of American voices—liberating American voices.

For these twenty thousand the war will not end—barring a miracle—next month or the month after that or even by next spring or summer.

It will end sooner, however, if not a single one of us lets down. If every one of us fights and works and invests in War Bonds right up to the last minute. It's the only way to speed victory.

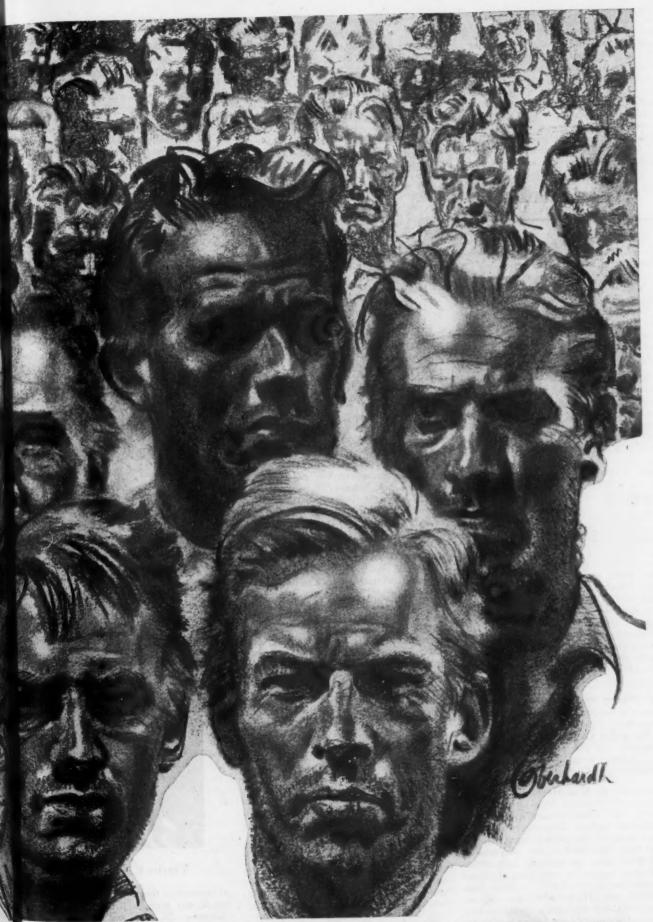
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MUIVISION OF AMERICAN LOCOMOTIVE COMPANY

December 16, 1944

fic had not been fully explored. "On the cation by the railroads to tender further other hand," the majority added, "it apamounts totaling \$3,079,185, applicable to pears questionable whether the volume of freight at Hickman will justify the service of two railroads indefinitely and the shippers at that point should bear that fact in mind in arranging for the movement of their traffic." Commissioner Rogers does not participate regularly in Division 4 proceedings, but was named to the division temporarily under the provisions of section 17 of the Interstate Commerce Act on the day this proceeding was submitted.

Financial

BALTIMORE & OHIO.—Promissory Note. -Division 4 of the Interstate Commerce Commission has authorized this road to issue \$706,500 of promissory notes, series F, with interest at 1.68 per cent, in connection with the purchase from the Baldwin Locomotive Works of ten 1,000-hp. dieselelectric switching locomotives at an aggregate cost of \$785,000. The notes were sold at par by competitive bidding to the Philadelphia National Bank of Philadelphia, Pa.

BALTIMORE & OHIO .- Acquisition .- Division 4 of the Interstate Commerce Commission has authorized this road to purchase the properties of the Toledo & Cincinnati, the Hamilton Belt, and the Lima Belt, and to dissolve those companies. The B. & O. already owns the capital stock of the Toledo & Cincinnati, which in turn owns all the stock of the other two companies, and the transaction will result in simplification of system capital structure.

BALTIMORE & OHIO .- Equipment Notes Awarded.-The Baltimore & Ohio has accepted a bid by the Central Hanover Bank & Trust Co. of New York of an interest rate of 1.62 per cent on \$1,059,750 of equipment notes, series G, payable in 30 quarterly installments. The notes will be issued, subject to the approval of the Interstate Commerce Commission, in connection with the purchase of fifteen 1,000-hp. Diesel-electric switching locomotives from the American Locomotive Company. The railroad's request for bids on this issue was reported in the Railway Age of December 2, page 868.

CANADIAN PACIFIC .- Proposed Acquisition.—On December 15, stockholders of the Vancouver, Victoria and Eastern Railway & Navigation Co., subsidiary of the Great Northern, will vote on a proposal for sale of its railway, extending from Princeton to Brookmere, B. C., to the Canadian Pacific.

CENTRAL OF NEW JERSEY .- New Jersey Taxes.-The State of New Jersey has returned the Jersey Central's check for \$1,015,000 tendered December 1 for back taxes under the tax settlement acts of 1941 and 1942. The check is part of a total of \$7,671,875 which the bankrupt railroad has offered or expects to offer soon. • Certified checks totaling \$3,577,690, tendered from 1941 through 1943 under the acts, still are uncashed and in the possession of the state, and on December 11 the federal bankruptcy court at Newark, N. J., granted an appliamounts totaling \$3,079,185, applicable to principal of unpaid taxes. Counsel for the state indicated to the bankruptcy court recently that the \$3,079,185 also would be refused on the basis offered. The Jersey Central contends that a decision last spring by the New Jersey court of errors and appeals did not invalidate the tax settlement acts as they pertain to the railroad. Over the opposition of the State, the bankruptcy court has referred the dispute to hearings before a special master.

DELAWARE, LACKAWANNA & WESTERN. -Leased Line Mergers. - At a special meeting on December 8, D. L. & W. stockholders approved a merger with the New York, Lackawanna & Western; the Lackawanna of New Jersey and the Valley. Stockholders of the N. Y. L. & W. have already approved the merger and 98 per cent of the stock of the Valley has been purchased by the Lackawanna. The Lackawanna of New Jersey will vote on December 28, with a majority of stockholders on record as favoring the merger.

DELAWARE, LACKAWANNA & WESTERN.-Merger of Morris & Essex .- This company has applied to the Interstate Commerce Commission for authority to merge the property of the Morris & Essex with its own, and so to take another step in its program for the acquisition of leased lines and termination of litigation over taxation questions. Of 300,000 shares of \$50 par value Essex stock outstanding, 298,699 shares are in the hands of the public. These the Lackawanna proposes to acquire in exchange for \$14,934,950 of Morris & Essex division collateral trust bonds, and an application has been filed with the commission for authority to issue such se-curities, as well as \$4,899,950 of Morris & Essex division 4 per cent mortgage bonds which, with other securities, would be pledged as collateral in connection with the collateral trust issue. The Lackawanna also has asked authority to assume liability for outstanding Essex securities, that is, \$35,000,000 of first refunding gold mortgage bonds, \$10,000,000 of series A construction mortgage gold bonds, \$15,-000,000 of series B construction mortgage gold bonds, and \$10,000,000 of series C construction mortgage gold bonds.

FLORIDA EAST COAST .- Finances Equipment Purchase.-The Florida East Coast has entered into a conditional sales egreement with the Chase National Bank of New York to finance approximately \$2,000,-000, or 75 per cent of the cost of 15 2,000-hp. Diesel-electric locomotives.

MISSOURI-KANSAS-TEXAS .- Modification of Leases.-Division 4 of the Interstate Commerce Commission has approved modifications of the leases under which the M. K. T. of Texas operates the Texas Central, Wichita Falls Railway, Wichita Falls & Northwestern, and Wichita Falls & Wellington, the purpose being to conform with current depreciation accounting practices of the commission and to obtain certain federal tax deductions.

NEW YORK, CHICAGO & St. Louis .-Bonds.-This company has applied to the Interstate Commerce Commission for authority to issue \$42,000,000 of refunding mortgage bonds, series D, to mature in 1975, the interest rate to be determined by competitive bidding. (Previous item in Railway Age of December 2, page 869.) Bids have been requested by December 19.

RUTLAND,-Interest Payments Ordered. -The United States district court at Rutland, Vt., has directed trustees to pay \$367,-175 in overdue interest as follows: Ogdensberg & Lake Champlain first mortgage 4 per cent bonds due 1948, \$167,200; Rutland first consolidated 41/2 per cent bonds due 1941, \$149,625; and Rutland Canadian first mortgage 4 per cent bonds due 1949, \$50,350.

Average Prices Stocks and Bonds

100	Dec. 12	Last week	Last
Average price of 20 representative railway stocks	47.75	44.76	34.9.
Average price of 20 repre- sentative railway bonds	92.50	92.18	79.7

Dividends Declared

Chicago Great Western.—5% preferred accum., 62%¢, payable December 29 to holders of record December 19.

Detroit, Hillsdale & South semi-annually, payable January 5, 1945, to holders of record December 20.

Gulf, Mobile & Ohio.—\$5.00 preferred, \$2.50, payable December 28 to holders of record December 28.

cember 15.

Nashville & Decatur.—71/4% guaranteed, 933/4¢, semi-annually, payable January 1., 1945, to holders of record December 21.

Pittsfield & North Adams.—\$2.50, semi-annually, payable January 2, 1945, to holders of record December 30.

Tennessee, Alabama & Georgia.—10¢, payable December 20 to holders of record December 13.

Railway Officers

EXECUTIVE

Charles E. A. McCarthy, who will retire on January 1, 1945, as vice-president and secretary of the Southern at New York

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Charles E. A. McCarthy

as reported in the Railway Age of December 9, was born in Brooklyn, N. Y., on November 27, 1873, and entered railroad service with the Southern on February 5, 1895, as a stenographer and clerk in the

New York office of the secretary. He served- 1922, and after serving as district freight there as assistant secretary from January 1. 1901, until November 11, 1920, when he was advanced to the position of secretary. On May 13, 1937, Mr. McCarthy was promoted to vice-president and secretary, the position from which he will soon retire.

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Carlton F. Heard, general freight agent of the Boston & Maine at Boston, Mass., has been named assistant to the vice-president, traffic, of the Boston & Maine and Maine Central, with the same headquarters. Mr. Heard, who was born on March 24, 1900, at Manchester, N. H., received his A.B. degree from Amherst College in 1921, and his B.S. in civil engineering from Harvard University, engineering school, in 1923. He entered railway service in September, 1923, as a clerk at the Billerca shops of the Boston & Maine. One month later, he was transferred to Enfield, N. H., and in August, 1924, he was again transferred, this time to the general freight office at Boston. In January, 1926, he was promoted to chief rate clerk in the same office at Boston, and in April, 1928, Mr. Heard was advanced to assistant general

Rachruck Herbert W. Bondurant

agent at Memphis and Philadelphia, Pa., he

was promoted to division freight agent at Charlotte, N. C., in 1931. He held the

position of assistant freight traffic manager

at Charlotte and later at Atlanta, Ga., from

May, 1933, to 1938, when he became freight traffic manager at Cincinnati, Ohio. On February 1, 1940, he was advanced to assistant vice-president at Washington, D. C. and on January 1, 1945, he will assume his new duties as vice-president at Atlanta.

W. Mason King, freight traffic manager of the Southern at Cincinnati, Ohio, has been promoted to assistant vice-president at Washington, D. C., effective January 1, 1945, succeeding Herbert W. Bondurant, whose elevation to vice-president at Atlanta, Ga., was announced in the December 9 issue of Railway Age. Mr. King was born at Charlotte, N. C., on October 31, 1899, and entered railroad service with the Southern there as secretary to the division freight agent in November, 1919. After serving in various clerical positions in that office and



Carlton F. Heard

freight agent at Boston, remaining in this post until November, 1942, when he was named general freight agent, the position he held at the time of his recent appointment as assistant to the vice-president,

Herbert W. Bondurant, whose promotion, effective January I, 1945, to vice-president of the Southern at Atlanta, Ga., was announced in the Railway Age of December 9, was born at Union City, Tenn., on August 19, 1892, and entered railroad service with the Nashville, Chattanooga & St. Louis at Nashville, Tenn., transferring to the Southern there on November 22, 1912, as chief clerk in the office of the commercial agent. He transferred to Dallas, Tex., in the same capacity in 1916, and was named traveling freight agent at Little Rock, Ark., shortly thereafter. After serving also at San Antonio, Tex., he became rate clerk in the general freight office at Memphis, Tenn., in 1918, and returned to Nashville in 1920 as freight traffic representative there. Mr. Bondurant was advanced to commercial agent at Nashville in



W. Mason King

in the office of the freight traffic manager at Washington, he was promoted to chief clerk to the general eastern freight agent at New York on September 1, 1922, later holding the positions of freight traffic representative, commercial agent and assistant general eastern freight agent there. Mr. King was appointed district freight agent at Philadelphia, Pa., in January, 1931, and two years later he was advanced to assistant freight traffic manager at Birmingham, Ala. After transferring to Charlotte in the same capacity, he returned to New York as eastern traffic manager on August 1, 1937, and on February 1, 1940, he was named freight traffic manager at Cincinnati, the position he will relinquish to assume his new duties as assistant vice-president in January.

Robert Baker Pegram, III, whose retirement on January 1, 1945, as vicepresident of the Southern at Atlanta, Ga., was announced in the Railway Age of December 9, was born at Marion, Ala., on August 22, 1874, and entered railway service in July, 1890, as a utility clerk in the office of the assistant general freight agent of the Memphis & Charleston (now the Memphis division of the Southern). After serving in various clerical positions in the freight traffic department at Memphis, Tenn., he became chief clerk of the Memphis freight bureau in May, 1895, and remained in this post until he joined the



Robert Baker Pegram, III

Illinois Central at Memphis as chief clerk in the office of the assistant general freight agent in August, 1896. He returned to the Memphis & Charleston the following year as chief clerk to the assistant general freight agent at Memphis, and continued his railway service when the Memphis & Charleston became part of the Southern in 1898. Mr. Pegram served as chief clerk in the freight claim office of the Southern at Washington, D. C., from 1899 to 1902, when he became chief clerk to the division freight agent, soliciting freight agent and commercial freight agent at Birmingham, Ala. He went to St. Louis, Mo., as chief clerk to the vice-president in April, 1905, but was promoted to assistant general freight agent at Nashville, Tenn., shortly thereafter, and later served at Nashville as general freight agent. He transferred to Charleston, S. C., in the same capacity in 1908, and was promoted to executive general agent, executive department, there two years later. He returned to Memphis as executive general agent in 1917, and then served as general purchasing agent of the Southern at Washington from 1918 to 1920,





REEPING WINTER IN A GAGE

The same brake that is exposed to blistering desert heat may a short time later be easing a car down a mountain grade with the thermometer 60-below. To give the brakes a pre-view of what they can expect from the weather . . . and give users a pre-view of what they can expect from the brakes . . . Westinghouse keeps a roomful of Arctic weather on tap.

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when he became vice-president in charge of tax and fuel and publicity departments at Atlanta, the position from which he retires.

FINANCIAL, LEGAL AND ACCOUNTING

Jeremiah Joseph Maher, who will become secretary of the Southern at New York on January 1, 1945, as reported in



Jeremiah Joseph Maher

the Railway Age of December 9, was born at Brooklyn, N. Y., on July 13, 1906, and entered railroad service with the Southern on January 14, 1926, as a file clerk in the New York office of the secretary. He became a stock transfer clerk on July 16, 1930, and was promoted to chief clerk on April 1, 1937. Since July, 1942, he has been serving as assistant secretary at New York, the position which he will leave to assume his new duties as secretary on January 1.

Alice Schmid has been appointed auditor of the Chicago, Attica & Southern, with headquarters at Attica, Ind., succeeding William H. Henzlik, who has resigned.

D. F. Curry, assistant auditor of the Duluth, South Shore & Atlantic, and of the Mineral Range, has been appointed acting auditor of revenues, with headquarters as before at Minneapolis, Minn.

OPERATING

F. J. Malone, assistant division superintendent of the Canadian Pacific at Moose Jaw, Sask., has been transferred to Cranbrook, B. C., succeeding G. R. Thomas, who in turn has been transferred to Penticton, B. C.

G. L. Savidis, trainmaster of the Chicago, Milwaukee, St. Paul & Pacific at Austin, Minn., has been transferred to Green Bay, Wis., succeeding P. J. Weiland, who in turn has been transferred to Portage, Wis.

Francisco de la Torre has been appointed superintendent of the Gulf division of the National Railways of Mexico, with headquarters at Monterrey, N. L., succeeding Alfredo Garduno, who has been transferred to the Monterrey division, with headquarters as before at Monterrey.

TRAFFIC

M. E. Chase has been appointed general agent of the Denver & Rio Grande Western, with headquarters at Fresno, Cal.

O. V. Howard has been appointed district freight and passenger agent of the Denver & Rio Grande Western, with head-quarters at Los Angeles, Cal.

E. A. Danner, commercial agent of the Minneapolis & St. Louis at Peoria, Ill., has been promoted to general agent, with the same headquarters.

E. A. Russell, district storekeeper of the Canadian National at Edmonton, Alta., has been appointed general agent of the Grand Trunk at New York.

C. W. Jones, coal traffic agent of the New York, Chicago & St. Louis at Cleveland, Ohio, has been promoted to coal freight agent, with headquarters at Chicago.

Fred C. Furry, whose promotion to assistant freight traffic manager of the Illinois Central, with headquarters at Chicago, was reported in the *Railway Age* of November 25, was born at Alden, Iowa, on October 10, 1883. He entered railway service on January 2, 1900, as a messenger of the I. C., at Chicago, subsequently serv



Fred C. Furry

ing in various capacities until July 1, 1913, when he was promoted to assistant general freight agent, with headquarters at Memphis, Tenn. On September 1, 1914, Mr. Furry was transferred to Chicago. His new appointment became effective on November 16.

Frank W. Trinka, passenger representative of the New York Central at Tulsa, Okla., has been appointed general agent, passenger department, at Oklahoma City, Okla., succeeding Ben Anderson, deceased.

Ira Lincoln Fish, whose appointment as general freight and passenger agent of the Pennsylvania-Reading Seashore Lines at Camden, N. J., was announced in the December 2 issue of Railway Age, was born February 12, 1892, at Philadelphia, Pa., and entered railroad service in the freight claim department of the Lehigh Valley in 1909. He joined the freight claim department of the Reading on December 13, 1918,

and was appointed traveling freight claim inspector the following March. On January 1, 1921, he became traveling freight agent, and one year later he was named assistant general agent at New York. He was promoted to general agent there in April, 1923, remaining in that position until May, 1927, when he was advanced to division freight agent of the Reading at Harrisburg, Pa., the post he held at the time



Ira L. Fish

of his recent appointment as general freight and passenger agent of the Pennsylvania-Reading Seashore Lines at Camden.

Kenneth G. Carlson, whose promotion to freight traffic manager of the Union Pacific, with headquarters at Omaha, Neb., was reported in the Railway Age of December 2, was born at Ft. Madison, Iowa, on September 20, 1896, and attended Iowa State College and the Iowa University. He entered railway service in 1917 with the Atchison, Topeka & Santa Fe at Kansas City, Mo., and in 1922 he went with the traffic department of the Union Pacific, being advanced to chief rate clerk, with headquarters at Omaha, in 1927, and to chief rate clerk, system, four years later. On January 1, 1937, Mr. Carlson was pro-



Kenneth G. Carlson

moted to general agent at Sioux City, Iowa, and in 1938 he was further advanced to assistant general freight agent, with head-quarters at Omaha. In May, 1939, he was promoted to assistant to the vice-president, traffic, with the same headquarters, and in

1940 he was advanced to assistant general freight traffic manager. On November 16, 1943, Mr. Carlson was appointed assistant freight traffic manager, with headquarters at San Francisco, Cal., and one year later he was transferred to Los Angeles, Cal., remaining in that location until his new appointment.

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Wesley J. Ficht, whose appointment as assistant to passenger traffic manager of the Seaboard Air Line at Norfolk, Va., was announced in the Railway Age of November 25, was born at Callery, Pa., on February 27, 1902, and entered railway service with the New York Central on June 15, 1920, as a clerk in the accounting department at Grand Central Terminal, New York. He became a ticket seller there the following January, and then went to St. Petersburg, Fla., in March, 1924, to join the Seaboard as assistant city ticket agent there, becoming city ticket agent the next month. Mr. Ficht was named district passenger agent at St. Petersburg in July, 1927, and transferred to Buffalo, N. Y., in the same capacity in April, 1931. In March, 1932, he was appointed traveling passenger agent at Pittsburgh, Pa., serving successively thereafter at Raleigh, N. C., Chicago, Ill., and Tampa, Fla., until January, 1936, when he was advanced to district passenger agent at Atlanta, Ga. The following December he was named assistant to the general passenger



Wesley J. Ficht

agent at Norfolk, remaining in that post until he was appointed assistant general passenger agent there in November, 1940. In June, 1943, Mr. Ficht became general passenger agent at Tampa, Fla., the position he held at the time of his recent promotion to assistant to passenger traffic manager at Norfolk.

ENGINEERING & SIGNALING

R. N. Brodie, chief draftsman, engineering department, of the Boston & Maine, has been appointed assistant structural engineer with headquarters at Boston, Mass.

Allen M. Knowles, whose retirement as engineer of structures of the Erie, with headquarters at Cleveland, Ohio, was reported in the Railway Age of December 9, was born at Corinna, Me., on June 22, 1879, and was graduated from the University of

Maine in 1904. He entered railroad service in June, 1905, as a structural draftsman on the Erie, at New York, and in November, 1906, was promoted to assistant engineer, structural department. In 1915 Mr. Knowles was advanced to assistant engineer, bridges and buildings, and five years later became assistant engineer of structures, holding that position until March, 1943, when he was promoted to the position he held at the time of his retirement.

Homer A. Dise, whose promotion to engineer of structures of the Erie, with headquarters at Cleveland, Ohio, was re-



Homer A. Dise

ported in the Railway Age of December 9, graduated from the University of Pennsylvania in 1906, and became a draftsman with the American Bridge Company at Elmira, N. Y., in June, 1906. In January, 1910, he entered railway service as a structural designer for the New York Central in connection with the electrification of the Hudson and Harlem divisions. Mr. Dise went with the Erie in September, 1918, as a structural designer and on March 1, 1920, he was promoted to chief draftsman, with headquarters at New York, later being transferred to Cleveland. In March, 1943, he was advanced to assistant engineer of structures, the position he held at the time of his new appointment.

Waring L. Codington, whose promotion to district engineer of the Canadian Pacific, with headquarters at Winnipeg. Man., was reported in the Railway Age of December 9, was born at Auburn, Neb., on November 19, 1889, and received his higher education at the University of Nebraska. He entered railway service with the Canadian Pacific in June, 1910, as a stakeman at Winnipeg, and served in various capacities on location and on construction until November, 1914, when he was assigned to the operating department as a trackman. In 1915 Mr. Codington was appointed resident engineer, with headquarters at Revelstoke, B. C., and a short time later he was transferred to Vancouver, B. C. From May, 1919, to June, 1921, he served as assistant engineer on harbor work, with the same headquarters, and from the latter date to May, 1923, he served in a similar capacity on the Connaught tunnel, with headquarters at Glacier, B. C. A short time later Mr. Codington was advanced to division engineer of the Winnipeg Terminal division, and

on February 1, 1925, he was transferred to the Medicine Hat division, with headquarters at Medicine Hat, Alta., remaining in that location until his new appointment.

MECHANICAL

C. H. Edwards, chief chemist of the Wheeling & Lake Erie at Brewster, Ohio, has been appointed chief chemist of the Seaboard Air Line with headquarters at Hamlet, N. C.

PURCHASES AND STORES

Joseph C. Marchand, chief clerk to the general storekeeper of the Western Pacific at Sacramento, Cal., has been promoted to general storekeeper, with the same head-quarters.

OBITUARY

Edward J. Mulherin, treasurer of the Georgia with headquarters at Augusta, Ga., died on November 13.

W. Loxley Peebles, general agent of the Missouri-Kansas-Texas, with headquarters at Detroit, Mich., died in that city on November 23.

George F. Sherry, assistant general freight agent of the Detroit, Toledo & Ironton, with headquarters at Dearborn, Mich., died at his home in Detroit, Mich., on November 28.

Edward M. Shelton, who retired on November 1, 1938, as general counsel of the Chicago, Burlington & Quincy, with headquarters at Chicago, died at Mexico City, D. F., on December 10. Mr. Shelton was born at Torrington, Conn., on October 3, 1868, and graduated from Yale University in 1890. After studying haw in an office at Washington, Iowa, he was admitted to the bar in that state in 1893. He entered railway service in the office of the general counsel at Burlington, Iowa, in November, 1897, and on May 1, 1907, he was transferred to Chicago. Mr. Shelton subsequently served as assistant to the general counsel and assistant general counsel, and on July 1, 1937, he was advanced to the position he held at the time of his retire-

Oscar C. Lott, superintendent of transportation of the Baltimore & Ohio at Pittsburgh, Pa., died in a hospital there on December 3. Mr. Lott entered railroad service with the Baltimore & Ohio on July 12, 1923, at Willard, Ohio, and was appointed yard brakeman the following September. He remained in yard and terminal service, being employed at various times throughout his career as yard helper, yardmaster, general yardmaster, assistant terminal trainmaster and terminal trainmaster. Appointed assistant superintendent at Pittsburgh on March 16, 1939, Mr. Lott became superintendent of the Wheeling division at Wheeling, W. Va., in January, 1941, and in 1942 was transferred to Pittsburgh. He had been serving as superintendent of transportation at Pittsburgh (the post he was occupying at the time of his death) since 1943.

your locomotives in It's all in DE" (CHECK ONE) DAILY INSPECTION WIN-WESTINGHOUSE INSPECTI N RECORD MECHANICAL INSPECTION (CHECK ONE) COMOTIVE NUMBER BALDWIN-WESTINGHOUSE INSPECTION RECORD MECHANICAL INSPECTION BALDWIN-WESTINGHOUSE INSPECTION RECORD QUARTERLY LOCOMOTIVE NUMBER LOCOMOTIVE NUMBER BALDWIN-WESTINGHOUSE INSPECTION RECORD AN MECE LOCOMOTIVE NUMBER

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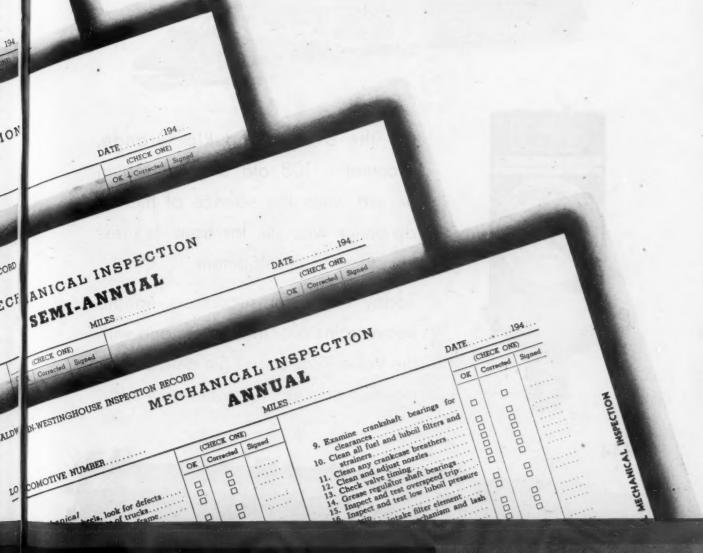
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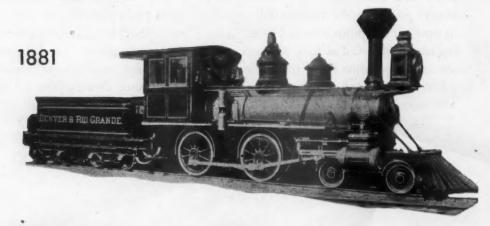
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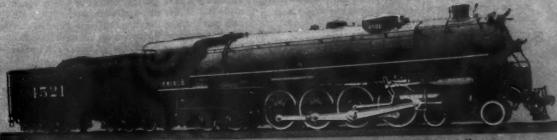
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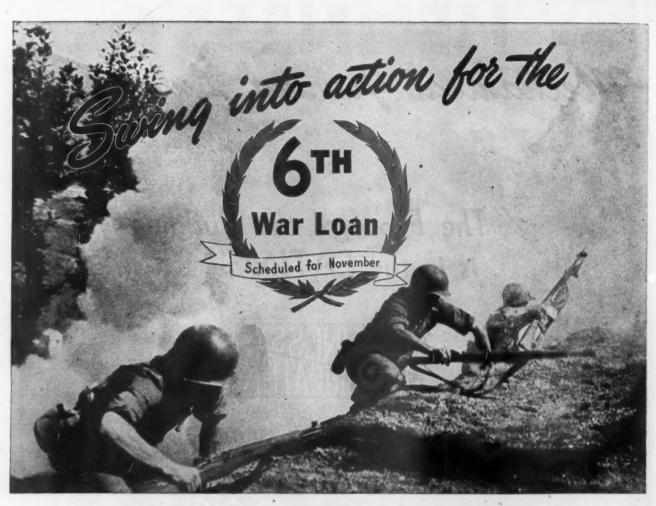








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- 2 TEAM CAPTAINS—Select a team captain, for each 10 workers, from men and women on the payroll—but not in a supervisory capacity. Returned veterans make most effective captains.
- 3 QUOTA-Set a quota for each department and each
- 4 MEETING OF CAPTAINS—Give a powerful presentation of the importance of the work assigned to them. Instruct them in sales procedure. Have them carefully study the Treasury Booklet, Getting the Order.
- 5 ASSIGNMENTS—Assign responsibilities for: (a) Music, speeches and announcements of the opening sally.

- (b) Pre-drive letter to employees from management and labor.
 (c) Competitive progress boards.
 (d) Meeting schedules, etc.
- 6 CARD FOR EACH WORKER—Dignify each personal approach with a pledge, order, or authorization card made out in the name of each worker. Provide for a cash purchase or installment pledge. Instruct each captain to put a pencil notation on the card to indicate the subscription he expects to solicit from each worker.
- 7 RESOLICITATION—People don't mind being asked to buy more than once. Resolicit each employee toward the end of the drive in a fast mop-up campaign. Call upon your State Payroll Chairman; he's ready with a fully detailed plan-NOW!
- 8 ADVERTISE THE DRIVE—Use all possible space in the regular media you employ to tell the War Bond story.

The Treasury Department acknowledges with appreciation the publication of this message by

RAILWAY AGE

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SUPER OF STATE

ON CIRCULATION. It is important

SOME ELEMENTARY FACTS

ing of the Syphons into the crown sheet is many times that of the intake at the throat sheet. This is most desirable and

to note that the area of the outlet open-

Syphons provide extensive additions to firebox heating surface. Large walls of steel plate located to best advantage for maximum heat absorption from the high firebox temperatures.

Syphons become an integral part of the crown sheet (not just an attachment thereto) in the form of a longitudinal flanged girder support. This is an important factor of safety in case of low water.



being rapidly heated and becomes

lighter as the temperature is raised. The unit weight of water occupies a

small outlet area as related to the intake always acts as a choke. In the process of evaporation the water is

a real necessity for free circulation. A

larger volume or space as its tempera-

ture is raised, hence the outlet area must be progressively greater than the intake if a continuous and vigorous water circulation is to be maintained without excessive ebullition. Further, a unit weight of steam occupies a very much greater volume or space, often in the order of 100 to 1 than the same unit weight of water. It, therefore, is evident that the outlet opening must be materi-

order to obtain a free exit for the steam

ally greater than the area of intake in

Syphons definitely increase the circulation in the entire boiler! As shown in longitudinal section they draw water from the throat sheet, the lowest part of the boiler, and by

thermic impulse carry it through the Syphons and over the crown sheet creating a circulation which extends clear through to the forward section the whole length of the boiler.

By reason of the added heating surface and complete circulation, Syphons promote fuel economy, better combustion, make for better steaming locomotives, add to the boiler capacity, increase firebox and flue life with lower maintenance costs, and provide positive assurance against boiler explosion in case of low water. It is obvious that for complete safety, Syphons must be installed in combustion chambers, as well as in the firebox proper.

Webox Company

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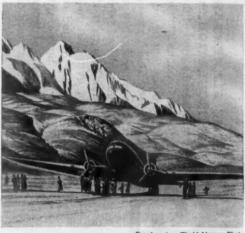
PAN AMERICAN WORLD AIRWAYS DEPENDS ON BOWSER FUELING EQUIPMENT

Peacetime or wartime, in modern Miami or the remote Himalayas, Pan American World Airways can't take chances on fueling systems for fuel must always be kept clean, dry, safe! Fueling equipment must be sturdy, dependable, accurate.

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-Pan American World Airways Photo

End of the aerial Burma Read — This plane, refueling after bringing a load of vital supplies over the Himologyas, is in the fleet of China National Aviation Corp., Pan American's affiliate in the Orient. This desolate setting is typical of the extremest in which Bowser Fueling Systems are working to help keep air transport operating.

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Regularly furnished with standard inside packing (same as OKADEE Blow-Off Valves) or the valves may be equipped with outside packing arrangement as illustrated.



Please send for our new Bulletin No. 431 no obligation.

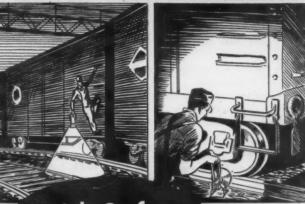
Cross section view showing stem assembly of valves equipped with outside packing. This stem assembly permits packing under pressure.

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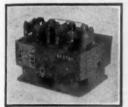
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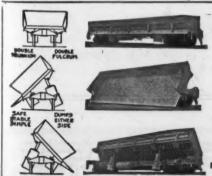
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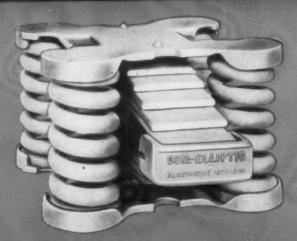
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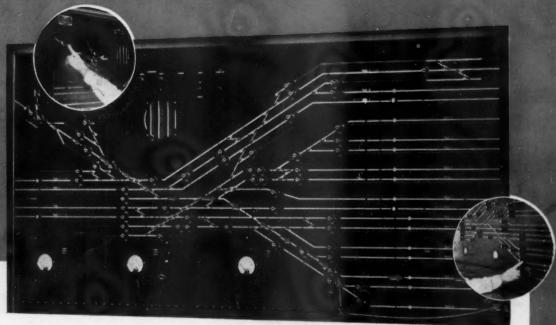
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NX minimizes the possibility of error in routing trains.

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NX is equally adaptable to large or small layouts.

If you have interlocking plants that are going to be bottlenecks in your postwar program, or that are worn and need replacement, plan now to install NX. Its advantages will more than warrant your choice. Our nearest District Office will appreciate the opportunity of planning with you in the development of your postwar plans.

This is number 4 of a series of suggestions offered to railroad officials concerned with postwar planning. Copies of the other suggestions of this series will be sent to you upon request.

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